- PATENT LITERATURE FOREIGN BIBLIOGRAPHIC DATABASES: Set Description Items 156429 S (TEXTILE? OR KNIT? ? OR KNITT? OR WEAVE? OR WEAVING? S1OR SEWING? OR KNITTER? OR WEAVER? OR CLOTHING OR FABRIC? OR LOOM? ? OR EMBROID? OR QUILT? OR DISTAFF? OR STITCH? OR NEEDLESTITCH?) (2N) (LOOM? ? OR FACTORY? OR FACTORIE? OR ASSEMBLY()LINE? ? OR MILL? ? OR MACHINE? OR DEVICE? OR APPARATUS? OR WORKSTATION? OR APPLIANC? OR STATION? OR KIOSK?) S (AUTOMATED? OR INDUSTR? OR ROBOT?) () (ASSEMBLY? OR 15436 PROCESS? OR ASSEMBL?) 678609 S MACHINE?()TOOL? ? OR MACHINERY? OR EQUIPMENT? (2N) (MANUFACTUR? OR PRODUCTION? OR ASSEMBLY? OR MANUFACTUR?) 12139 S (INDUSTR? OR MECHANIC OR MECHANICAL? OR FACTORY?)()(DEVICE? OR MECHANISM? OR WORKSTATION? OR KIOSK?) 426019 S (MANUFACTUR? OR PRODUCTION OR ASSEMBLY OR MOLD?) (2N) (DEVICE? OR MECHANISM? OR WORKSTATION? OR KIOSK?) 48694 S (PRODUCTION OR ASSEMBLY?) () (FACILIT? OR LINE? OR KIOSK? OR WORKSTATION? OR STATION?) OR FACTORIE? 45478 S (ASSEMBLY? OR CHEMICAL? OR POWER) () PLANT? S7 2333 S OPERATOR() (WORKSTATION? OR STATION? OR KIOSK? OR S8 CONSOLE? OR SERVER?) S9 10237 S INDUSTR?() (PLANT? ? OR MILL? ?) OR REFINERY OR REFINERIE? 48342 S (PHARMACEUT? OR POWER? OR CHEMICAL?) () PLANT? ? OR (PULP OR PAPER OR PRINT?) () MILL? S11 1357606 S S1:S10 S12 13385 S NETWORK? OR INTRANET? OR ETHERNET? OR EXTRANET? OR VPN OR WAN OR VPNS OR WANS OR LAN OR LANS OR WLAN? OR WAP OR WAPS OR WWAN?
- S13 282442 S PLURAL? OR MULTI OR MULTIPLE? OR MULTIPLICIT? OR MULTITUD? OR MANY OR SEVERAL? OR DISTRIBUT? () CONTROL? OR NUMBER? OR NUMEROUS?
- S14 20687 S CLUSTER? OR ARRAY?
- S15 5182 S WIRELESS? OR RADIOLINK? OR RADIO()LINK??? OR BLUETOOTH OR IPV6 OR CORDLESS? OR WIFI OR WI()FI OR WIRE()LESS? OR BLUE()TOOTH
- S16 101582 S COMPUTER? OR MICROCONTROLLER? OR MICROCOMPUTER? OR MINICONTROLLER?
- S17 86788 S CONTROLLER? OR CONTROLLING() (DEVICE? OR UNIT? ?) OR MINICOMPUTER? OR PC OR PCS
- S18 69610 S COMPUTER? ? OR DATAPROCESSOR? OR MICROPROCESSOR? OR CENTRALPROCESSOR? OR CPU? ?
- S19 7386 S SERVER? OR (DATA OR MICRO OR CENTRAL) () (PROCESSOR? OR CONTROLLER?)
- S20 6143 S PROGRAMMABLE()CONTROLLER? OR NUMERICAL()CONTROLLER?
- S21 1230 S PLC? ? OR PROGRAM? () LOGIC? () CONTROLLER?
- S22 2864 S (INDUSTRIAL? OR INDUSTRY? OR MANUFACTUR? OR FACTORY? OR ASSEMBLY?()PLANT? OR PRODUCTION?()FACILIT?)(3N)(CONTROLLER? OR SERVER? OR PROCESS?()CONTROL?)
- S23 3056 S (INDUSTRIAL? OR INDUSTRY? OR MANUFACTUR? OR FACTORY? OR ASSEMBLY?()PLANT? OR PRODUCTION?()FACILIT?)(3N)(COMPUTER? OR CPU? ? OR PROCESSOR?)
- S24 9191 S CELLPHONE? OR TABLET() (PC OR PCS) OR (MOBILE OR CELL OR CELLULAR? OR RADIO)()(PHONE? OR TELEPHONE?) OR POCKET()PC

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5631 S (PORTABLE? OR HANDHELD? OR HAND() HELD? OR TRANSPORT?
OR HAND () CARR? OR CARRYABL? OR MOBILE?) () (DEVICE? OR APPARATUS?)
        1999 S PALM? ? OR PALMTOP? OR (PALM OR LAP) () (TOP OR TOPS)
S26
OR LAPTOP? OR BLACKBERRY?
        4710 S PDA OR PDAS OR (PERSONAL OR PORTABLE?) () (DIGITAL OR
S27
INFORMATION) () (ASSISTANT? OR DEVICE?) OR PID OR PIDS
       10294 S PALMPILOT? OR PALM()PILOT? OR CELLULAR?() (DEVIC? OR
APPARATUS?) OR REMOTE()CONTROL? OR RADIO()FREQUENC?()(DEVIC? OR
APPARATUS?) OR RADIO?()(DEVICE? OR APPARATUS?)
         399
               S CORDLESS? OR CORD()LESS? OR POCKET()PC
S30
       459811
               S MONITOR? OR DETERMIN? OR CONTROL? OR DETECT? OR
TRANSDUCING? OR TRANSDUCER? OR SENSING OR SENSOR?
       38771
              S (SENSE? OR SENSING? OR TRANSDUC? OR DETECT? OR
MONITOR?) (3N) (DEVIC? OR APPLIANC? OR APPARATUS? OR EQUIPMENT? OR
HARDWARE? OR PERIPHERAL? OR ELEMENT?)
       24462
               S (SENSE? OR SENSING? OR TRANSDUC? OR DETECT? OR
MONITOR?) (3N) (MODULE? OR UNIT? ? OR COMPONENT? OR HARD() WARE? OR
SYSTEM? OR PROCESSOR? OR PROBE?)
S33
         3589 S QUERY? OR INTERROGAT? OR PING??? OR SURVEY? OR
SURVEILL?
S34
       19911 S TRANSMITTER? OR TRANSCEIVER? OR EMITTER? OR
TRANSPONDER? OR TRANSRECEIVER?
        2030 S RFTRANSMIT? OR RFTRANSPOND? OR RFTRANSCEIVER? OR
REMOTE (2N) (TRANSMIT? OR TRANSMISS?)
S36
         6248 S TRANSMITT? (3N) RECEIV? OR TRANSMIT? (2N) RESPOND?R?
                S (2WAY OR TWO()WAY OR 2()WAY)() (RADIO? OR COMMUNICAT?
S37
         260
OR BLUETOOTH OR IEEE802? OR IEEE()(80211 OR 802()11) OR WIRELESS? OR
WIRE() LESS OR WAP)
         138
               S TELEMET?() (DEVICE? OR APPARATUS?) OR
TRANSMITT?R? (2N) DETECT?R? OR (BANDPASS OR BAND () PASS) () RECEIVER?
S39
         877 S RFID OR RADIO()FREQUENC?()IDENTIF? OR RF()IDENTIF? OR
TRIRM? ?
               S XPDR? ? OR XPNDR? ? OR TPDR? OR TPNDR? OR
S40
RADIOTELEMET?
               S INTERROGATOR? OR INTERROGATER? OR CELLULAR() (DEVICE?
         236
OR APPARATUS?)
               S WIRE? OR HARDWIR? OR WIRING OR PHYSICAL() (CONNECT? OR
S42 97341
ATTACH?) OR NONWIRELESS? OR (NON OR "NOT" )()WIRELESS?
S43
         101 S AU=(SPEICH F? OR SPEICH, F?)
S44
           0 S SPEICH (2N) FRANC?
S45
     131598 S IC=(H04M? OR G05B? OR B29C? OR G06F?)
     130808 S MC=(F03? OR T01? OR T06? OR W01? OR X25? OR F02?)
S46
         252 S S11 AND S12:S14 AND S15 AND S16:S23 AND S24:S29 AND
S47
S34:S41
S48
           1
               S S47 AND S43:S44
S49
          27
               S S47 AND S1
S50
          27
              S S48:S49
S51
          12 S S50 AND AY=1970:2002
S52
          7 S S50 NOT AY=2003:2009
          12
               S S51:S52
S53
          12
S54
               IDPAT (sorted in duplicate/non-duplicate order)
S55 12 IDPAT (primary/non-duplicate records only)
S56
         225
               S S47 NOT S50
S57
         164
              S S56 AND S45:S46
S58
         225 S S56:S57
$59 205 $ $58 AND $42
$60 185 $ $58 AND $30:$33
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225
S61
                S S58:S60
                S S61 AND (WIRE OR WIRED OR WIRES OR HARDWIR?)
S62
          38
          225
S63
                S S61:S62
          86
                S S63 AND AY=1970:2002
S64
         105
                S S63 NOT AY=2003:2009
S65
S66
         128
                S S64:S65
S67
         128
                IDPAT (sorted in duplicate/non-duplicate order)
S68
         128
                IDPAT (primary/non-duplicate records only)
; show files
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[File 347] **JAPIO** Dec 1976-2008/Aug(Updated 081208)

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[File 350] **Derwent WPIX** 1963-2008/UD=200907

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55/5,K/4 (Item 4 from file: 350) **Links** 

Fulltext available through: Order File History

Derwent WPIX

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0013854836 & & Drawing available WPI Acc no: 2004-033136/200403 XRPX Acc No: N2004-026232

Data processing configuration for computers system, has workstation that authorizes wireless connection between personal data device and workstation after determining that wireless signal is transmitted by recognized device

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC) Inventor: MCBREARTY G F; MULLEN S P; SHIEH J M

Patent Family (1 patents, 1 & countries)

| Patent Number  | Date         | Applicatio<br>n Number | Kin<br>d | Date         | Upda<br>te | Typ<br>e |
|----------------|--------------|------------------------|----------|--------------|------------|----------|
| US 20030216136 | 200311<br>20 | US 200215<br>0004      | A        | 200205<br>16 | 20040<br>3 | В        |

Priority Applications (no., kind, date): US 2002150004 A 20020516

## Patent Details

| Patent Number  | Kind | Lan | Pgs | Draw | Filing Notes |
|----------------|------|-----|-----|------|--------------|
| US 20030216136 | A1   | EN  | 9   | 4    |              |

#### **Alerting Abstract US A1**

NOVELTY - The configuration has a host workstation (110) that accesses a database

with an entry comprising personal data device (101) identification and password information, for each of a set of personal data devices. The workstation determines whether a **wireless** signal is transmitted by a recognized personal data device and, responsive to recognization, authorizes a **wireless** connection between the device and the workstation.

USE - Used for a **computer** system.

ADVANTAGE - The configuration provides a secure personalized desktop functionality across a **computer network** without requiring the user to install and configure the storage device e.g. a disk into the **computer** each time the log-on sequence is initiated. DESCRIPTION OF DRAWINGS - The drawing shows a block diagram of selected features of a data processing **network** having a workstation and a personal data device.

101 Personal data device

110 Host workstation

114 Volatile system memory

116 Network interface card

118 Hard disk

Data processing configuration for computers system, has workstation that authorizes wireless connection between personal data device and workstation after determining that wireless signal is transmitted by recognized device Alerting Abstract ...information, for each of a set of personal data devices. The workstation determines whether a wireless signal is transmitted by a recognized personal data device and, responsive to recognization, authorizes a wireless connection between the device and the workstation. USE - Used for a computer system... ... ADVANTAGE - The configuration provides a secure personalized desktop functionality across a computer network without requiring the user to install and configure the storage device e.g. a disk into the computer each time the log-on sequence is initiated... ... OF DRAWINGS - The drawing shows a block diagram of selected features of a data processing network having a workstation and a personal data device... ...116 Network interface card... Title Terms .../Index Terms/Additional Words: COMPUTER; ... ...WIRELESS; Class Codes Original Publication Data by AuthorityArgentinaPublication No. ...Original Abstracts: system and method in which user personalized directories of information are maintained on portable and wireless personal data devices. The personal data devices include a storage medium, a wireless transmitter, and a state machine suitable for implementing a wireless protocol such as Bluetooth or IEEE 802.11b. Typically, the personal data devices are small enough to clip or otherwise attach to a user's clothing. The personal data **device** is configured to transmit a signal that includes personal data device (PDD) identification information. When the user is within range of a suitably enabled workstation, the workstation "hears" the signal and deciphers the PDD ID. If the user attempts to log on to the **network**, the workstation will **prompt** the user for a username/password combination and compare the user's responses to information... ... Claims: processing configuration, comprising: a portable personal data device including a storage element, a radio frequency transceiver, and a state machine suitable for implementing a wireless protocol enabling transmission and receipt of data via the transceiver, wherein the storage element includes desktop data personal to a corresponding user and wherein the personal data device is configured to transmit, via the transceiver, a wireless signal identifying the personal data device; a host workstation including at least one processor connected to a volatile system memory, a

transceiver suitable for receiving the wireless signal and for determining the personal data device identifying information; means for securely accessing a database containing an entry for each of the at least one personal data... ... entry includes personal data device identification and password information; workstation means for determining if the wireless signal is being transmitted by a recognized personal data device; responsive to recognizing the personal data device, means for authorizing a wireless connection between the personal data device and the workstation; responsive to successfully authorizing the connection, workstation means for wirelessly accessing the personal data stored on the personal data device to enable the user to access the personal data via the workstation.

### What is claimed is:

- 1. A data processing configuration, comprising: a portable personal data device including a storage element, a radio frequency transceiver, and a state machine suitable for implementing a wireless protocol enabling transmission and receipt of data via the transceiver, wherein the storage element includes desktop data personal to a corresponding user and wherein the personal data device is configured to transmit, via the transceiver, a wireless signal identifying the personal data device; a host workstation including at least one processor connected to a volatile system memory, a transceiver suitable for receiving the wireless signal and for determining the personal data device identifying information; means for securely accessing a database containing an entry for each of the at least one personal data devices, wherein each entry includes personal data device identification and password information; workstation means for determining if the wireless signal is being transmitted by a recognized personal data device; responsive to recognizing the personal data device, means for authorizing a wireless connection between the personal data device and the workstation; responsive to successfully authorizing the connection, workstation means for wirelessly accessing the personal data stored on the personal data device to enable the user to access the personal data via the workstation.
- 2. The configuration of claim 1, wherein the portable personal data device is configured for removable attachment to the user's clothing.
- 3. The configuration of claim 1, wherein the wireless protocol is selected from the group including an IEEE 802.11b protocol and a Bluetooth protocol.
- 4. The configuration of claim 1, wherein the host information includes a host password and wherein the storage element includes at least one entry, wherein each stored entry contains a corresponding host password and further wherein the means for verifying the host information includes means for comparing the received host password to the host password in each entry in the storage element.
- 5. The configuration of claim 4, wherein the host information further includes a host-proposed directory path and wherein the means for verifying the host information

includes means for comparing the host-proposed directory path to a directory path stored in the storage element.

- 6. The configuration of claim 1, wherein the means for enabling the host to access the desktop data includes means for providing a directory mount point to the host.
- 7. The configuration of claim 1, wherein the means for determining a recognized personal data device including means comparing the personal data device identification information determined from the signal to personal data device identification information stored in the database.
- 8. The configuration of claim 1, wherein the means for authorizing the connection includes; means for authorizing the user of the personal data device to the workstation; and means for authorizing the workstation to the personal data device.
- 9. The configuration of claim 8, wherein the means for authorizing the user includes means for prompting the user to enter password information and means for comparing the entered password information to password information stored in the database.
- 10. The configuration of claim 8, wherein the means for authorizing the workstation to the personal data device includes means for wirelessly transmitting workstation information from the workstation to the personal data device.
- 11. The configuration of claim 10, wherein the means for authorizing the workstation to the personal data device further includes means for wirelessly transmitting a workstation proposed directory path to the personal data device wherein proposed directory path represents a directory path the workstation will mount if the connection is authorized.
- 12. The configuration of claim 1, wherein the means for wirelessly accessing the personal data stored on the personal data device includes means for wirelessly mounting a directory path under which the personal data is stored.
- 13. A portable personal data device, comprising: a storage element, a radio frequency transceiver, and a state machine suitable for implementing a wireless protocol enabling transmission and receipt of data via the transceiver, wherein the storage element includes desktop data personal to a corresponding user and wherein the personal data device is configured to transmit, via the transceiver, a wireless signal identifying the personal data device; means for verifying host information received wirelessly from the host that identifies the host to the portable processing device; and responsive to verifying the host, means for enabling the host to access the desktop data wirelessly.
- 14. The device of claim 13, wherein the portable personal data device is configured for removable attachment to the user's clothing.
- 15. The device of claim 13, wherein the wireless protocol is selected from the group including an IEEE 802.11b protocol and a Bluetooth protocol.

- 16. The device of claim 13, wherein the host information includes a host password and wherein the storage element includes at least one entry, wherein each stored entry contains a corresponding host password and further wherein the means for verifying the host information includes means for comparing the received host password to the host password in each entry in the storage element.
- 17. The device of claim 16, wherein the host information further includes a host-proposed directory path and wherein the means for verifying the host information includes means for comparing the host-proposed directory path to a directory path stored in the storage element.
- 18. The device of claim 13, wherein the means for enabling the host to access the desktop data includes means for providing a directory mount point to the host.
- 19. A workstation suitable for use with at least one personal data device, the workstation including at least one processor connected to a volatile system memory and further comprising: a transceiver suitable for receiving a wireless signal transmitted by one of the personal data devices and further suitable for determining information contained in the signal identifying the corresponding personal data device; means for securely accessing a database containing an entry for each of the at least one personal data devices, wherein each entry includes personal data device identification and password information; means for determining if the wireless signal is being transmitted by a recognized personal data device; responsive to recognizing the personal data device, means for authorizing a connection between the personal data device and the workstation; responsive to successfully authorizing the connection, means for wirelessly accessing the personal data stored on the personal data device to enable the user to access the personal data via the workstation.
- 20. The workstation of claim 19, wherein the means for determining a recognized personal data device including means comparing the personal data device identification information determined from the signal to personal data device identification information stored in the database.
- 21. The workstation of claim 19, wherein the means for authorizing the connection includes; means for authorizing the user of the personal data device to the workstation; and means for authorizing the workstation to the personal data device.
- 22. The workstation of claim 21, wherein the means for authorizing the user includes means for prompting the user to enter password information and means for comparing the entered password information to password information stored in the database.
- 23. The workstation of claim 21, wherein the means for authorizing the workstation to the personal data device includes means for wirelessly transmitting workstation information from the workstation to the personal data device.

- 24. The workstation of claim 23, wherein the means for authorizing the workstation to the personal data device further includes means for wirelessly transmitting a workstation proposed directory path to the personal data device wherein proposed directory path represents a directory path the workstation will mount if the connection is authorized.
- 25. The workstation of claim 19, wherein the means for wirelessly accessing the personal data stored on the personal data device includes means for wirelessly mounting a directory path under which the personal data is stored.
- 26. The workstation of claim 19, wherein the transceiver complies with a wireless protocol selected from the group including IEEE. 802.11b and Bluetooth.

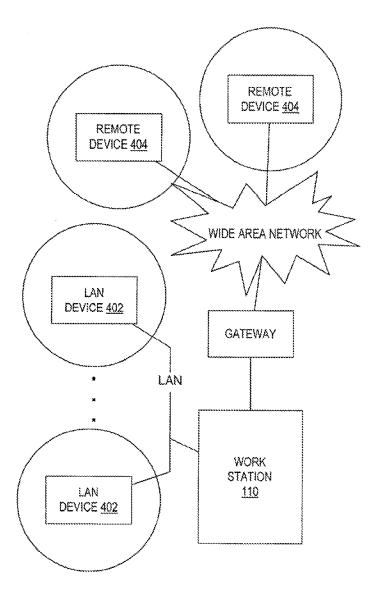


FIG. 4

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55/5,K/5 (Item 5 from file: 350)

XRPX Acc No: N2003-147165

Sewing machine has microprocessor that enables to use digital coded transmission given large number of wireless switches, and independent motor speed controller provided on machine body manually

Patent Assignee: SHAD P (SHAD-I)

Inventor: SHAD P

Patent Family (9 patents, 102 & countries)

|             | ~~. | Patent ram | ily (9 patents, 102 & |    | ; <i>)</i> | 1    |    |
|-------------|-----|------------|-----------------------|----|------------|------|----|
| Patent      | Ki  | Date       | Application           | Ki | Date       | Upd  | Ty |
| Number      | nd  | Date       | Number                | nd | Date       | ate  | pe |
| CD 227(05(  |     | 200212     | GB 20021341           |    | 200206     | 2003 | D  |
| GB 2376956  | A   | 31         | 8                     | A  | 12         | 19   | В  |
| GD 225(05)  | ъ   | 200305     |                       |    |            | 2003 | Б  |
| GB 2376956  | В   | 14         |                       |    |            | 33   | Е  |
| WO 2003106  | A1  | 200312     | WO 2003GB             |    | 200305     | 2004 | Г  |
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| AU 2003222  | A1  | 200312     | AU 20032229           | ۸  | 200305     | 2004 | Е  |
| 998         |     | 31         | 98                    | A  | 01         | 51   | E  |
| ED 1511000  | A1  | 200503     | EP 20037189           | ٨  | 200305     | 2005 | Г  |
| EP 1511888  |     | 09         | 64                    | A  | 01         | 18   | Е  |
|             |     |            | WO 2003GB             | ۸  | 200305     |      |    |
|             |     |            | 1842                  | A  | 01         |      |    |
| US 20050115 | A1  | 200506     | WO 2003GB             | Δ  | 200305     | 2005 | Е  |
| 481         |     | 02         | 1842                  | A  | 01         | 37   | E  |
|             |     |            | US 20045075           | ۸  | 200409     |      |    |
|             |     |            | 41                    | A  | 09         |      |    |
| TIC 7146040 | D2  | 200612     | WO 2003GB             | ۸  | 200305     | 2006 | т. |
| US 7146240  | B2  | 05         | 1842                  | Α  | 01         | 80   | Е  |
|             |     |            | US 20045075           | ٨  | 200409     |      |    |
|             |     |            | 41                    | A  | 09         |      |    |
| EP 1511888  | D.1 | 200612     | EP 20037189           | Δ. | 200305     | 2007 | Е  |
| EP 1311000  | B1  | 27         | 64                    | A  | 01         | 02   | E  |
|             |     |            | WO 2003GB             | ۸  | 200305     |      |    |
|             |     |            | 1842                  | A  | 01         |      |    |
| DE 6031071  | Е   | 200702     | DE 60310713           | A  | 200305     | 2007 | Е  |
| 3           | E   | 08         |                       | А  | 01         | 23   | E  |
|             |     |            | EP 20037189           | A  | 200305     |      |    |
|             |     |            | 64                    | A  | 01         |      |    |
|             |     |            | WO 2003GB             | A  | 200305     |      |    |
|             |     |            | 1842                  | A  | 01         |      |    |

Priority Applications (no., kind, date): GB 200213418 A 20020612

# Alerting Abstract GB A

NOVELTY - A remotely-controlled sewing machine has a microprocessor that enables use of digital coded transmission if a large number of wireless control units are in operation. The frequency reference of the transmitter is a single crystal or a SAW device and does not require multiple frequencies. An independent motor speed controller is provided on the machine body manually.

DESCRIPTION - The microprocessor in the transmitter outputs a pseudo-random signal to avoid interference from adjusted units using amplitude modulation. The strap attached to the transmitter box (A) contains insulated wire to reactivate a small amount of signal and transmits from a restricted location or area when the circuit is mostly obscured by the body and clothing. The transmitter switch is disabled when there is a 5 volt supply present to recharge the battery. The receiver box supplies 5 volts for the transmitter to recharge the battery making redundant an independent battery charger. The box that contains the on/off switch for the transmission of the sewing machine is portable, being hand held by the operator or placed on the floor attached by the strap to the arm, leg, or wrist. An independent motor speed controller is provided on the machine body manually. When a sewing machine is being controlled, a second transmitter can be recharged simultaneously on the machine body, providing continuous use of the machine with full charge battery supply and without delaying garment production.

An INDEPENDENT CLAIM is included for a transmitter box containing a light emitting diode (LED) for the battery charger and operate LED, and receiver box (B) containing a power LED and an operate LED and an IEC inlet mains connector.

USE - For control of one or more sewing machines, e.g. in a industrial environment.

ADVANTAGE - The sewing machine has a wireless switch and an independent controller attached to the machine body, providing a sewing machine free from interference from signals from other transmitters. A rechargeable battery operates the remote control and the sewing machine stops if the rechargeable battery runs out of power, or the control signal is not received.

DESCRIPTION OF DRAWINGS - The figure is a diagram illustrating the transmitter box and receiver box, and sewing machine block.

A Transmitter box

B Receiver box

Sewing machine has microprocessor that enables to use digital coded transmission given large number of wireless switches, and independent motor speed controller provided on machine body manually A remotely-controlled sewing machine has a microprocessor that enables use of digital coded transmission if a large number of wireless control units are in operation. The frequency reference of the transmitter is a single crystal or a SAW device and does not require multiple frequencies. An independent motor speed controller is provided on the machine body manually. DESCRIPTION - The microprocessor in the transmitter outputs a pseudo-random signal to avoid interference from adjusted units using amplitude

modulation. The strap attached to the transmitter box (A) contains insulated wire to reactivate a small amount of signal and transmits from... ...location or area when the circuit is mostly obscured by the body and clothing. The transmitter switch is disabled when there is a 5 volt supply present to recharge the battery. The receiver box supplies 5 volts for the transmitter to recharge the battery making redundant an independent battery charger. The box that contains the on/off switch for the transmission of the sewing machine is portable, being hand held by the operator or placed on the floor attached by the strap to the arm, leg, or wrist. An independent motor speed controller is provided on the machine body manually. When a sewing machine is being controlled, a second transmitter can be recharged simultaneously on the machine body, providing continuous use of the machine with... ... An INDEPENDENT CLAIM is included for a transmitter box containing a light emitting diode (LED) for the battery charger and operate LED, and ... ... USE - For control of one or more sewing machines, e.g. in a industrial environment... ... ADVANTAGE - The sewing machine has a wireless switch and an independent controller attached to the machine body, providing a sewing machine free from interference from signals from other transmitters. A rechargeable battery operates the remote control and the sewing machine stops if the rechargeable battery runs out of power, or the control signal is not... ... DESCRIPTION OF DRAWINGS - The figure is a diagram illustrating the transmitter box and receiver box, and sewing machine block... ... A Transmitter box Abstracts: A wireless transmitter a may be used to produce coded digital signals for operating the control switches of a plurality of sewing machines. The transmitter has a rechargeable battery which can be charged on connecting the transmitter to a receiver B on the body D of a sewing machine. A strap attached to the transmitter incorporates an aerial wire... ... Sewing machine being transmitted by one wireless switch or more than one transmitted switches being used to transmit one sewing machine or more than one machine simultaneously used. Sewing machines being ramderley transmitted in various start and stop sewing operations by one individual operator and or a group of individual operators using their allocated sewing machines. A rechargeable battery is used. The speed controller is attached to the machine body. The receiver box supplies the voltage to recharge the battery for the transmitter. ... ... A sewing machine is constructed to receive the transmission of one or more of wireless switches, said one or more switches being used to transmit simultaneously. Sewing machines are transmitted to in various start and stop sewing operations by one individual operator and or a group of individual operators using their allocated sewing machines. A rechargeable battery is used. The speed controller is attached to the machine body. The receiver box supplies the voltage to recharge the battery for the transmitter. ... ... A wireless transmitter a may be used to produce coded digital signals for operating the control switches of a plurality of sewing machines. The transmitter has a rechargeable battery which can be charged on connecting the transmitter to a receiver B on the body D of a sewing machine. A strap attached to the transmitter incorporates an aerial wire... Claims: Sewing machine having a microprocessor (1C) controlled switch and a manual motor speed controller (1C) provided independently on the machine body, the sewing machine being provided with a battery powered radio transmitter (2G) to operate the switch remotely and an associated receiver (1K) on the body of the machine, the transmitter using digitally coded signals to avoid interference with other remotely controlled sewing machines in the vicinity, the transmitter operating with amplitude modulation, characterized in that the transmitter has a single crystal or saw device oscillator and a having a single crystal or saw device oscillator and a microprocessor which generates a pseundo-randomly spaced data stream,, the switch being controlled so as to stop the machine if the stream of data is interrupted, the transmitter having a strar (5A) for attachment to an operator, the strap (5A)

incorporating a wire (5C) to help with the propagation of the transmitted signal, the transmitter being adapted to be physically connected to a box housing the receiver in order to recharge the transmitter battery, the transmitter being disabled from operating the switch while its battery is be recharged... ... 1. A sewing machine having a microprocessor controlled switch and a manual motor speed controller provided independently on the machine body, the sewing machine being provided with a battery powered radio transmitter to operate the switch remotely and an associated receiver on the body of the machine, the transmitter using digitally coded signals to avoid interference with other remotely controlled sewing machines in the vicinity, the transmitter having a single crystal or saw device oscillator and a microprocessor which generates a pseundo-randomly spaced data stream, the transmitter operating with amplitude modulation, the switch being controlled so as to stop the machine if the stream of data is interrupted, the transmitter having a strap for attachment to an operator, the strap incorporating a wire to help with the propagation of the transmitted signal, the transmitter being adapted to be physically connected to a box housing the receiver in order to recharge the transmitter battery, the transmitter being disabled from operating the switch while its battery is being recharged...... The invention claimed is:1. A sewing machine having a microprocessor controlled switch and a manual motor speed controller provided independently on the machine body, the sewing machine being provided with a battery powered radio transmitter to operate the switch remotely and an associated receiver on the body of the machine, the transmitter using digitally coded signals to avoid interference with other remotely controlled sewing machines in the vicinity, the transmitter having a single crystal or saw device oscillator and a microprocessor which generates a psuedo-randomly spaced data stream, the transmitter operating with amplitude modulation. the switch being controlled so as to stop the machine if the stream of data is interrupted, the transmitter having a strap for attachment to an operator, the strap incorporating a wire to help with the propagation of the transmitted signal, the transmitter being adapted to be physically connected to a box housing the receiver in order to recharge the transmitter battery, the transmitter being disabled from operating the switch while its battery is being recharged.

55/5,K/10 (Item 10 from file: 350) <u>Links</u>

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0009287206 & & *Drawing available* WPI Acc no: 1999-217090/199919 XRAM Acc no: C1999-064121

Monitoring dryer drum temperatures in papermaking or textile machines

Patent Assignee: NASH ENG CO (NASH-N)

Inventor: FARNSWORTH D C

Patent Family (6 patents, 30 & countries)

| Patent<br>Number | Ki<br>nd | Date         | Application<br>Number | Ki<br>nd | Date         | Upda<br>te | Ty<br>pe |
|------------------|----------|--------------|-----------------------|----------|--------------|------------|----------|
| EP 908555        | A2       | 199904<br>14 | EP 1998307<br>970     | A        | 199810<br>01 | 1999<br>19 | В        |
| JP 11161345      | A        | 199906       | JP 19982816           | A        | 199810       | 1999       | Е        |

|            |    | 18     | 83         |     | 02     | 35   |   |
|------------|----|--------|------------|-----|--------|------|---|
| CA 2248641 | A1 | 199904 | CA 2248641 | A   | 199809 | 1999 | Е |
|            |    | 03     | 77 1000000 |     | 23     | 37   |   |
| BR 1998039 | Α  | 199912 | BR 1998398 | A   | 199810 | 2000 | Е |
| 85         |    | 07     | 3          |     | 02     | 15   |   |
| KR 1999036 | Α  | 199905 | KR 1998408 | A   | 199809 | 2000 | Е |
| 718        |    | 25     | 76         | • • | 30     | 32   |   |
| US 6104987 | Α  | 200008 | US 1997943 | A   | 199710 | 2000 | Е |
| 03 0104767 | А  | 15     | 746        | Λ   | 03     | 41   | 1 |

A. The apparatus (10) monitors steam heated dryer drums or cans (12) used to dry a continuously moving web. Wireless sensors(18) on each drum cylindrical end piece generate temperature proportional signals to individual sensor pickup devices (20). Communications circuits (22,24,26,28) are used to transmit the signals by radio (24,26) or direct (23) connections to a processing computer (30). The computer can generate control signals to vary the steam flow to each drum.

DESCRIPTION - An INDEPENDENT CLAIM is included for a method of monitoring the temperatures using the apparatus detailed above.

USE - To monitor dryer can temperatures in papermaking or textile drying sections. ADVANTAGE - The **wireless** temperature sensors can give closed loop control of the drum or can temperatures on individual cans.

DESCRIPTION OF DRAWINGS - The drawing shows a schematic of the system.

- 12 Dryer drums
- 14 Hood
- 18 Temperature sensors
- 20 Sensor pickup devices
- 22 Multiplexer
- 23 Connection wire
- 24,26,28 Radio communications link
- 30 Computer controller

# B. Monitoring dryer drum temperatures in papermaking or textile machines

**Alerting Abstract** ...monitors steam heated dryer drums or cans (12) used to dry a continuously moving web. Wireless sensors(18) on each drum cylindrical end piece generate temperature proportional signals to individual sensor... ...to transmit the signals by radio (24,26) or direct (23) connections to a processing **computer** (30). The **computer** can generate control signals to vary the steam flow to each drum. ...ADVANTAGE - The wireless temperature sensors can give closed loop control of the drum or can temperatures on individual... ... 22 Multiplexer ... ... 30 Computer controller Technology Focus ELECTRONICS - Preferred Features: The system may use a radio transmitter (24) and receiver (26) fed through a multiplexing member (22). The sensor elements (18) may be temperature sensitive crystals mounted in drilled holes... Extension Abstract Original Publication Data by Authority Argentina Publication No. Original Abstracts: A system is provided for monitoring the temperature of dryer drums in papermaking or textile machinery. Wireless temperature sensors are mounted to each dryer drum. Sensor pickup devices receive temperature signals from the temperature sensors that are processed by a **computer**. Multiplexers may be used to provide the signals from multiple

sensor pickup devices to a radio-frequency transmitter. A radio-frequency receiver may be used to receive signals from the transmitter and provide these signals to a computer. The computer determines the temperature of the drums by processing the temperature signals. The computer may provide control signals to a distributed control system to control the temperature of the drums (e.g., by controlling the flow of steam into the dryer... ... A system is provided for monitoring the temperature of dryer drums in papermaking or textile machinery. Wireless temperature sensors are mounted to each dryer drum. Sensor pickup devices receive temperature signals from the temperature sensors that are processed by a **computer**. **Multiplexers** may be used to provide the signals from multiple sensor pickup devices to a radiofrequency transmitter. A radio-frequency receiver may be used to receive signals from the transmitter and provide these signals to a computer. The computer determines the **temperature** of **the** drums by processing the temperature signals. The computer may provide control signals to a distributed control system to control the temperature of the drums (e.g., by controlling the flow of steam into the dryer section). ... Claims: drums for generating temperature signals proportional to the temperatures of the dryer drums and for wirelessly transmitting the temperature signals; sensor pickup devices for receiving the wirelessly transmitted temperature signals generated by the temperature sensors; communications circuitry for receiving the temperature signals from the sensor pickup devices... ... drums for generating temperature signals proportional to the temperatures of the dryer drums and for wirelessly transmitting the temperature signals using radio frequency transmissions; sensor pickup devices for receiving the wirelessly transmitted temperature signals generated by the temperature sensors; communications circuitry for receiving the temperature signals from the sensor pickup devices and for communicating the temperature signals; and processing circuitry for...

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55/5,K/12 (Item 12 from file: 350) **Links** Fulltext available through: Order File History

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0007565346

WPI Acc no: 1996-180679/199619 XRAM Acc no: C1996-060378 XRPX Acc No: N1996-157970

Automatic sewing or embroidery machine with simple, cheap communication link -controlled by pattern data stored in remote computer mailbox for down-loading to its own integral microcomputer or by unique storage card

Patent Assignee: PFAFF AG G M (PFAF) Inventor: HARTWIG J; REICHMANN C

Patent Family (2 patents, 2 & countries)

| Patent<br>Number | K<br>in<br>d | Date   | Application<br>Number | Ki<br>nd | Date   | Upda<br>te | Ty<br>pe |
|------------------|--------------|--------|-----------------------|----------|--------|------------|----------|
| DE 1950117       | С            | 199604 | DE 1950117            | A        | 199501 | 1996       | В        |

| 7          | 1 | 11           | 7                 |   | 17           | 19         |   |
|------------|---|--------------|-------------------|---|--------------|------------|---|
| US 5662055 | A | 199709<br>02 | US 1996587<br>575 | A | 199601<br>17 | 1997<br>41 | Е |
|            |   |              |                   |   |              |            |   |

C. A program-controlled **sewing** or **embroidery machine** has a **stitch**-forming tool (2), an integrated **microcomputer** (4), at least one store (16,17) and at least one data interface (5) while the machine also has a keypad (12) and display (11) for entry and inspection of values belonging to the control program. Here the data interface can be connected directly via modem (6) over a data transfer link (7) to the mailbox (10) of the central **computer** (9) and the **computer** hardware, e.g. key pad, display and store, needed for communication with the mail box is placed in the machine itself, The required sequence of functions for communication with the mailbox are contributed and monitored by the **microcomputer** (4) controlling the machine.

USE - In machine sewing or embroidering.

ADVANTAGE - Pattern information can be stored and retrieved simply with low equipment cost by a mailbox of a remote **computer**.

ADVANTAGE - PREFERRED MACHINE - The machine has additionally a card slot (13) for interchangeable storage cards and the pattern data can also be stored in these. A serial **number** identifying any particular machine is stored in its memory (16,17) and the **microcomputer** undertakes formatting storage card before the serial **number** in it. To read th card the **microcomputer** first identifies its serial **number** and compares it with the machine **number** and only when these **numbers** correspond can the **microcomputer** activate the stitch-forming tool. The data interface is a serial interface and data transfer can b analogue or digital telephone line or by a **cordless**, e.g. **radio**, **link**.

D. Automatic sewing or embroidery machine with simple, cheap communication link.....controlled by pattern data stored in remote computer mailbox for downloading to its own integral microcomputer or by unique storage card ...Original **Titles:**Program-controlled **sewing** or emboidery **machine** and method of operating such machines. Alerting Abstract ... A program-controlled sewing or embroidery machine has a stitch-forming tool (2), an integrated microcomputer (4), at least one store (16,17) and at least one data interface (5) while ... ...modem (6) over a data transfer link (7) to the mailbox (10) of the central **computer** (9) and the **computer** hardware, e.g. key pad, display and store, needed for communication with the mail box... ...required sequence of functions for communication with the mailbox are contributed and monitored by the **microcomputer** (4) controlling the machine... ... USE - In machine sewing or embroidering. ... ... be stored and retrieved simply with low equipment cost by a mailbox of a remote computer. ... ...interchangeable storage cards and the pattern data can also be stored in these. A serial number identifying any particular machine is stored in its memory (16,17) and the microcomputer undertakes formatting storage card before the serial number in it. To read the card the **microcomputer** first identifies its serial **number** and compares it with the machine **number** and only when these **numbers** correspond can the microcomputer activate the stitch-forming tool. The data interface is a serial interface and data transfer can b analogue or digital telephone line or by a cordless,

e.g. radio, link. Documentation Abstract A program-controlled sewing or embroidery machine has a stitch-forming tool (2), an integrated microcomputer (4), at least one store (16,17) and at least one data interface (5) while... ... modem (6) over a data transfer link (7) to the mailbox (10) of the central **computer** (9) and the computer hardware, e.g. key pad, display and store, needed for communication with the mail box... ... required sequence of functions for communication with the mailbox are contributed and monitored by the microcomputer (4) controlling the machine... ... USE - In machine sewing or embroidering... ... be stored and retrieved simply with low equipment cost by a mailbox of a remote **computer**.... ... interchangeable storage cards and the pattern data can also be stored in these. A serial number identifying any particular machine is stored in its memory (16,17) and the microcomputer undertakes formatting storage card before the serial number in it. To read the card the microcomputer first identifies its serial number and compares it with the machine number and only when these numbers correspond can the microcomputer activate the stitch-forming tool. The data interface is a serial interface and data transfer can b analogue or digital telephone line or by a cordless, e.g. radio, link.(Documentation Abstract Image Title Terms .../Index Terms/Additional Words: COMPUTER; ... ...MICROCOMPUTER; Class Codes Original Publication Data by Authority Argentina Publication No. Original Abstracts: A program-controlled sewing or embroidery machine comprising a stitch-forming device (2), an integrated microcomputer (4), at least one memory (16, 17) and at least one data interface (5), as well as a keyboard... ... checking values for program control. To retrieve sewing or embroidery pattern data from a remote computer (mailbox) in a simple manner, the data interface (5) of the sewing or embroidery machine (1) is able to be connected directly to the mailbox (10) of a central computer (9) via a data transmission connection (7) via a corresponding modem (6), and the structural units which are necessary... ... 10), such as display (11), keyboard (12) and memory (16, 17) are disposed in the sewing or embroidery machine (1) itself, with the functional processes necessary for communication with the mailbox (10) being able to be controlled and monitored by the microcomputer (4) necessary for controlling the program of the sewing or embroidery machine. The invention further relates to a method of operating program-controlled sewing or embroidery machines. >...Claims: Claim 4. A program-controlled sewing or embroidery machine comprising: a stitch-forming device; an integrated microcomputor, including at least one memory, for controlling the **stitch** forming device according to programs stored in the at least one memory, and at least one serial data interface for receiving and transmitting data; a keyboard and a display disposed on the sewing or embroidering machine, and connected to the microcomputer, for entering and monitoring values for program control; and a modem for connecting said data interface to a data transmission connection for direct connection to a mailbox of a central computer; and wherein programs and functional processes necessary for communication with the mailbox via said means for **connecting are** stored in said memory so that, using said keyboard and said display, communication with the mailbox necessary for controlling the program of the **sewing** or **embroidery machine** can be controlled and monitored by said microcomputer

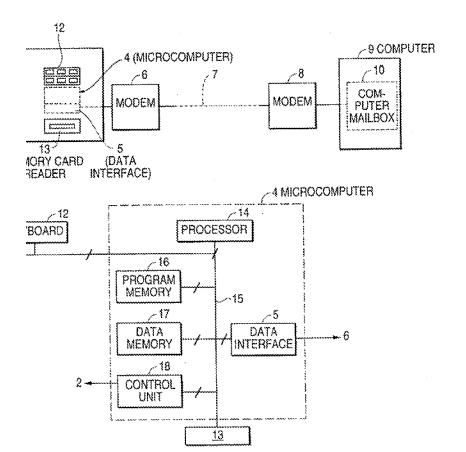
- 1. A program-controlled sewing or embroidery machine comprising: a stitch-forming device; an integrated microcomputer, including at least one memory, for controlling the stitch forming device according to programs stored in the at least one memory, and at least one data interface for receiving and transmitting data; a keyboard and a display disposed on the sewing or embroidering machine, and connected to the microcomputer, for entering and monitoring values for program control; means for connecting paid data interface to a data transmission connection for direct connection to a mailbox of a central computer; wherein programs and functional processes necessary for communication with the mailbox via said means for connecting are stored in paid memory so that, using said keyboard and said display, communication with the mailbox necessary for controlling the program of the sewing or embroidery machine can be controlled and monitored by said microcomputer, and wherein said sewing or embroidery machine additionally has a memory device which includes a card slot reader for interchangeable memory cards, said card reader being connected to and controlled by said microcomputer so that sewing and embroidery pattern data can also be stored on and read from a memory card in said reader.
- 2. A program-controlled sewing or embroidery machine as defined in claim 1, wherein: a serial number which uniquely identifies the respective sewing or embroidery machine is stored in said memory of the sewing or embroidery machine; said microcomputer includes processing means for formatting a memory card in said reader prior to storage of a respective sewing or embroidery pattern on the memory card, for storing the serial number of the respective sewing or embroidery machine on the memory card in the formatting process, for initially identifying the serial number of the memory card during reading of a memory card and comparing the read memory card serial number with the serial number associated with the respective sewing or embroidery machine stored in said memory, and for producing an output signal indicating the result of the comparison; and, said microcomputer further includes control means, responsive to said output signal indicating the result of the comparison for activating said stitch-forming device part only if the serial number of the sewing or embroidery machine and the serial number stored on the memory card match.
- 3. A program-controlled sewing or embroidery machine as defined in claim 1, wherein said data interface of said sewing or embroidery machine is a serial interface.
- 4. A program-controlled sewing or embroidery machine comprising: a stitch-forming device; an integrated microcomputor, including at least one memory, for controlling the stitch forming device according to programs stored in the at least one memory, and at least one serial data interface for receiving and transmitting data; a keyboard and a display disposed on the sewing or embroidering machine, and connected to the microcomputer, for entering and monitoring values for program control; and a modem for connecting said data interface to a data transmission connection for direct connection to a mailbox of a central computer; and wherein programs and functional processes necessary for communication with the mailbox via said means for connecting are stored in said memory so that, using said keyboard and said display, communication with the mailbox

necessary for controlling the program of the sewing or embroidery machine can be controlled and monitored by said microcomputer.

- 5. A program-controlled sewing or embroidery machine as defined in claim 4, wherein said data transmission connection is one of an analog and a digital telephone network.
- 6. A program-controlled sewing or embroidery machine comprising: a stitch-forming device; an integrated microcomputer, including at least one memory, for controlling the stitch forming device according to programs stored in the at least one memory, and at least one data interface for receiving and transmitting data; a keyboard and a display disposed on the sewing or embroidering machine, and connected to the microcomputer, for entering and monitoring values for program control; means for connecting said data interface to a data transmission connection for direct connection to a mailbox of a central computer; wherein programs and functional processes necessary for communication with the mailbox via said means for connecting are stored in said memory so that, using said keyboard and said display, communication with the mailbox necessary for controlling the program of the sewing or embroidery machine can be controlled and monitored by said microcomputer, and wherein said data transmission connection is a wireless radio network, and said means for connecting is a radio transceiver.
- 7. A method of safeguarding against unauthorized copying by an external computer of sewing or embroidery pattern data stored on a memory card of a program-controlled sewing or embroidery machine which comprises: a stitch-forming device; an integrated microcomputer, including at least one memory, for controlling the stitch forming device according to programs stored in the at least one memory, and at least one data interface for receiving and transmitting data; a keyboard and a display disposed on the sewing or embroidering machine, and connected to the microcomputer, for entering and monitoring values for program control; a memory device which includes a card slot reader for interchangeable memory cards, with the card reader being connected to and controlled by the microcomputer so that sewing and embroidery pattern data can be stored on and read from a memory card in the reader; and means for connecting the data interface to a data transmission connection for direct connection to a mailbox of a central computer; and wherein programs and functional processes necessary for communication with the mailbox via the means for connecting are stored in the memory so that, using the keyboard and the display, communication with the mailbox necessary for controlling the program of the sewing or embroidery machine can be controlled and monitored by the microcomputer; said method comprising the steps of:

storing a serial number which is characteristic of the program-controlled sewing or embroidery machine in the memory of the microcomputer of this machine; formatting the memory card, prior to or during the storing of sewing or embroidery pattern data, using the microcomputer of the program-controlled sewing or embroidery machine; copying the serial number of the sewing or embroidery machine onto the memory card during the formatting process; during reading of a memory card using the microcomputer of the corresponding sewing or embroidery machine, first identifying the serial number of the memory card and comparing this identified serial number with the serial number

associated with the respective sewing or embroidery machine and stored in its memory; and permitting the microcomputer to perform the functional processes necessary, for sewing or embroidering of the stored pattern only if the serial numbers of the sewing or embroidery machine and of the memory card match.



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68/5,K/4 (Item 4 from file: 350) **Links** 

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0015084067 & & Drawing available WPI Acc no: 2005-433523/200544

Related WPI Acc No: 2001-397974; 2002-147310; 2003-441964; 2004-432017; 2005-487424; 2005-504908; 2005-504913; 2005-504916; 2005-512087; 2006-413104

XRPX Acc No: N2005-351730

Remote computer operating method for local computer e.g. printer, involves establishing firewall compliant connection between local and remote computers over public network, and integrating remote desktop on local computer display

Patent Assignee: BJORNSON E S (BJOR-I); HESSELINK L (HESS-I); RIZAL D (RIZA-I);

SENVID INC (SENV-N)

Inventor: BJORNSON E S; HESSELINK L; RIZAL D; BJORNSON E

Patent Family (5 patents, 107 & countries)

| Patent      | Ki |        | Application  | Ki       |        | Upd  | Ty |
|-------------|----|--------|--------------|----------|--------|------|----|
| Number      | nd | Date   | Number       | nd       | Date   | ate  | pe |
| US 2005011  | A1 | 200505 | US 19994541  | <b>A</b> | 199912 | 2005 |    |
| 4711        |    | 26     | 78           | A        | 02     | 44   | В  |
|             |    |        | US 20006086  | ۸        | 200006 |      |    |
|             |    |        | 85           | A        | 29     |      |    |
|             |    |        | US 20023005  | Α        | 200211 |      |    |
|             |    |        | 00           | А        | 19     |      |    |
|             |    |        | US 20035204  | Р        | 200311 |      |    |
|             |    |        | 81           | r        | 14     |      |    |
|             |    |        | US 20049883  | Α        | 200411 |      |    |
|             |    |        | 94           | А        | 13     |      |    |
| WO 2005050  | A2 | 200506 | WO 2004US3   | Α        | 200411 | 2005 | Е  |
| 625         |    | 02     | 7608         | А        | 13     | 44   | ப  |
| EP 1751745  | A2 | 200702 | EP 200481909 | A        | 200411 | 2007 | Е  |
| EF 1731743  |    | 14     | 1            | А        | 13     | 15   | Ŀ  |
|             |    |        | WO 2004US3   | A        | 200411 |      |    |
|             |    |        | 7608         | А        | 13     |      |    |
| IN 20060190 | P4 | 200706 | WO 2004US3   | A        | 200411 | 2007 | Е  |
| 9           | 14 | 08     | 7608         | А        | 13     | 48   | E  |
|             |    |        | IN 2006CN19  | A        | 200605 |      |    |
|             |    |        | 09           | A        | 31     |      |    |
| WO 2005050  | A3 | 200803 | WO 2004US3   | Α        | 200411 | 2008 | Е  |
| 625         |    | 27     | 7608         | Α        | 13     | 24   | Ľ  |

E. The method involves authenticating a remote **computer** (12b) for connection to a local **computer** (12a) over a public **network** (16) e.g. Internet. The local **computer** is authenticated for connection to the remote **computer** over the public **network**. A firewall compliant connection is established between the local and remote **computers** over the **network**. A desktop of the remote **computer** is integrated on a display of the

### local computer.

USE - Used for operating a remote computer from a local computer e.g. minicomputer, microcomputer, UNIX machine, mainframe machine, super computer, personal computer such as Intel computer, apple computer and sun computer, personal digital assistant (PDA), wearable computer, cellular phone, MP3 player, laptop computer, notebook computer, television, stereo, audio/video recording device, printer, fax machine, office equipment, medical device, vehicle, camera, RFID equipment, laboratory equipment, manufacturing machinery, GPS equipment and security device, over a public network.

ADVANTAGE - The firewall compliant connection is established between the local and remote **computers** over the public **network**, thus allowing the local **computer** to securely operate the remote **computer**.

DESCRIPTION OF DRAWINGS - The drawing shows a functional block diagram of an access and **control** system for **network**-enabled devices.

12a Local computer

12b Remote computer

14 Connection server

16 Public network

24 Private **network** 

F. e.g. printer, involves establishing firewall compliant connection between local and remote computers over public network, and integrating remote desktop on local computer display Alerting Abstract ... NOVELTY - The method involves authenticating a remote **computer** (12b) for connection to a local **computer** (12a) over a public **network** (16) e.g. Internet. The local **computer** is authenticated for connection to the remote **computer** over the public **network**. A firewall compliant connection is established between the local and remote **computers** over the **network**. A desktop of the remote **computer** is integrated on a display of the local **computer**. ... mainframe machine, super computer, personal computer such as **Intel** computer, apple computer and sun computer, personal digital assistant (PDA), wearable computer, cellular phone, MP3 player, laptop computer, notebook computer, television, stereo, audio/video recording device, printer, fax machine, office equipment, medical device, vehicle, camera, RFID equipment, laboratory equipment, manufacturing machinery, GPS equipment and security device, over a public **network**.... ... ADVANTAGE - The firewall compliant connection is established between the local and remote **computers** over the public **network**, thus allowing the local **computer** to securely operate the remote **computer**.... ... DESCRIPTION OF DRAWINGS - The drawing shows a functional block diagram of an access and control system for network-enabled devices... ... 12a Local computer ... ... 12b Remote computer ... ... 14 Connection server ... ... 16 Public network ... ... 24 Private **network Abstracts:** Applications, systems and methods for efficiently accessing and controlling data of devices among multiple computers over a **network**. The **computers** may be located behind differing firewalls without detriment to the functionality of the present applications, systems arid methods. Persistent **network** connections are provided between the **computers** so that if a connection is broken, the connection is automatically reconnected to resume functioning without any requirement for reconfiguration required to resume normal functioning. Access for connecting to a **network** may be predicated upon a remote

user logging in with password data and/or meeting biodata security requirements. Computers may be securely interconnected over a public network. Computers may be securely interconnected over a wireless connection, without the need to configure a firewall... ... Applications, systems and methods for securely and remotely operating a remote computer from a local computer over a network while providing seamless, firewall-compliant connectivity. Secure and remote operation includes authenticating at least one remote computer for connection to at least one computer over the **network** and/or at least one local **computer** for connection to at least one remote computer over the network; establishing a secure connection between the at least one local **computer** and the at least one remote **computer** over the **network**; and integrating a desktop of at least one remote **computer** on a display of at least one local computer. The connections may be made over a public network, as well as through **multiple** firewalls without loss of functionality. A method of accessing and using at least one remote computer from a local computer over a public network may include centrally authenticating, at a location having a public address, a first **computer** having a first, firewall protected private address; creating a first firewall compliant connection between a publicly addressed connection server and the first computer upon authentication of the first computer; establishing a second firewall compliant connection between the publicly addressed connection server and a second computer having a second firewall protected private address; establishing a privateto-public-to-private communications tunnel, wherein the connection server routes communications from the first **computer** through the first firewall compliant connection and the second firewall compliant connection to the second **computer**, and from the second computer through the second firewall compliant connection and the first firewall compliant connection to the first **computer**; and performing at least one further step selected from the group consisting of: integrating a file structure of accessible files accessed at the second or first computer, into a file structure contained at the first or second computer, respectively; at least one of integrating a desktop of the second computer on a display of the first computer and integrating a desktop of the first computer on a display of the second computer; and directly operating the second computer from the first computer or the first computer from the second **computer**, wherein the **computer** that is directly operated is selected from the group consisting of: home appliances, video equipment, audio equipment, printers, fax machines, office equipment, medical devices, vehicles, cameras, RFID equipment, laboratory equipment, manufacturing machinery, GPS equipment, and devices having one or more embedded **microprocessors**. ... ... Applications, systems and methods for efficiently accessing and controlling data of devices among multiple computers over a network. The computers may be located behind differing firewalls without detriment to the functionality of the present applications, systems arid methods. Persistent **network** connections are provided between the **computers** so that if a connection is broken, the connection is automatically reconnected to resume functioning without any requirement for reconfiguration required to resume normal functioning. Access for connecting to a **network** may be predicated upon a remote user logging in with password data and/or meeting biodata security requirements. Computers may be securely interconnected over a public **network.** Computers may be securely interconnected over a wireless connection, without the need to configure a firewall... ...:1. A method of securely and remotely operating a remote **computer** from a local **computer** over a public **network** while

providing seamless, firewall-compliant connectivity, said method comprising the steps of:authenticating at least one of said remote **computer** for connection to said local **computer** over the public **network** and said local **computer** for connection to said remote **computer** over the public **network**; establishing a secure connection between said local **computer** and said remote **computer** over the public **network**; andintegrating a desktop of said remote **computer** on a display of said local **computer** 

68/5,K/6 (Item 6 from file: 350) Links

Entity monitoring method in petroleum plant, involves creating use index representing status information regarding entity performance, using maintenance, process and diagnostic data of entity collected during operation

Patent Assignee: ERYUREK E (ERYU-I); SCHLEISS T D (SCHL-I)

Inventor: ERYUREK E; SCHLEISS T D

Patent Family (1 patents, 1 & countries)

| Patent Number  | Kind | Date     | Application<br>Number  | Kind | Date     | Update | Тур   |
|----------------|------|----------|------------------------|------|----------|--------|-------|
| US 20050033466 | A1   | 20050210 | US 2001273164          | P    | 20010301 | 200522 | В     |
|                |      |          | US 200285439           | A    | 20020228 |        |       |
|                |      |          | US 2004945221          | A    | 20040920 |        |       |
| US 7221988     | B2   | 20070522 |                        |      |          | 200734 | Е     |
|                |      |          | Continuation of patent |      |          | US 681 | 13532 |

**G.** The method involves collecting maintenance, process and diagnostic data of an entity, while the entity is in operation, and transmitting the collected data to an index computation device. The use index representing the status information regarding the entity performance, is created using the collected data. The use index is stored in a database.

DESCRIPTION - An INDEPENDENT CLAIM is also included for system for displaying use indices for process plant.

USE - For monitoring entity including field devices such as two, three, and four wire devices, wireless device, variable speed driver, controller, multiplexer, rotating equipment, actuator, power generation equipment, power distribution equipment, transmitter, sensor, control system, transceiver, valve, positioner, transformer, tank, switch, electrical equipment, server, hand-held device, pump, input/output system, smart field device, non-smart field device, Ethernet device, internet-based device, network communication device, highway addressable remote transmitter (HART) protocol device, field bus protocol device, transfer control protocol/internet protocol (TOP/I) protocol device, controller area network (CAN) protocol device, PROFIBUS protocol device, WORLDFIP protocol device and device-net protocol device, used in chemical plant and petroleum plant.

ADVANTAGE - Performs better and more optimal control and maintenance of the entity within the process plant.

DESCRIPTION OF DRAWINGS - The figure shows a graphical display provided by the graphical user interface. 600 process area

- H. Entity monitoring method in petroleum plant, involves creating use index representing status information regarding entity performance, using ... Alerting Abstract ... USE For monitoring entity including field devices such as two, three, and four wire devices, wireless device, variable speed driver, controller, multiplexer, rotating equipment, actuator, power generation equipment, power distribution equipment, transmitter, sensor, control system, transceiver, valve, positioner, transformer, tank, switch, electrical equipment, server, hand-held device, pump, input/output system, smart field device, non-smart field device, Ethernet device, internet-based device, network communication device, highway addressable remote transmitter (HART) protocol device, field bus protocol device, transfer control protocol/internet protocol (TOP/I) protocol device, controller area network (CAN) protocol device, PROFIBUS protocol device, WORLDFIP protocol device and device-net protocol device, used in chemical plant and petroleum plant... ... ADVANTAGE Performs better and more optimal control and maintenance of the entity within the process plant...
- I. Abstracts: A process control system uses an asset utilization expert to collect data or information pertaining to the assets... ... plant from various sources or functional areas of the plant including, for example, the process control functional areas, the maintenance functional areas and the business systems functional areas. This data and... ... other areas or tools where it is used to perform overall better or more optimal control, maintenance and business activities. Information or data may be collected by maintenance functions pertaining to... ... A process control system uses an asset utilization expert to collect data or information pertaining to the assets... ... plant from various sources or functional areas of the plant including, for example, the process control functional areas, the maintenance functional areas and the business systems functional areas. This data and... ... other areas or tools where it is used to perform overall better or more optimal **control**, maintenance and business activities. Information or data may be collected by maintenance functions pertaining to... Claims: What is claimed is: 1. A method of monitoring an entity within a process plant comprising: collecting data pertaining to the operation of the... ... What is claimed is:1. A method of **monitoring** an entity within a process plant comprising: collecting entity operation data, wherein the entity operation... ... entity is in operation; transmitting the collected entity operation data to an index computation device; determining performance of the entity from the collected entity operation data and from a computer model of the entity, wherein the performance of the entity is performance of the entity... ... performance index represents the performance of the entity during the operation of the entity as determined from the computer model of the entity as compared to a potential performance of the entity; andstoring.

68/5,K/14 (Item 14 from file: 350) <u>Links</u>
Fulltext available through: <u>Order File History</u>

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610 tank

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0014179004 & & Drawing available WPI Acc no: 2004-364267/200434 Related WPI Acc No: 2003-755405 XRPX Acc No: N2004-291376

Plant e.g. thermal power plant operating apparatus, has operation terminal operating plant equipment by transferring operation request through wireless local area network transceivers at plant worksite

Patent Assignee: HITACHI LTD (HITA) Inventor: NAGATSUKA H; SUZUKI J

Patent Family (2 patents, 1 & countries)

| Patent      | Ki  | Date   | Application | Ki | Date   | Upda | Ty |
|-------------|-----|--------|-------------|----|--------|------|----|
| Number      | nd  | Date   | Number      | nd | Date   | te   | pe |
| US 20040078 | A 1 | 200404 | US 2002247  | ٨  | 200209 | 2004 | D  |
| 094         | A1  | 22     | 649         | A  | 20     | 34   | В  |
|             |     |        | US 2003682  | ٨  | 200310 |      |    |
|             |     |        | 554         | Α  | 10     |      |    |
| US 7269463  | D2  | 200709 | US 2003682  | ٨  | 200310 | 2007 | Б  |
| US /209403  | B2  | 11     | 554         | Α  | 10     | 61   | Е  |

Priority Applications (no., kind, date): JP 20029754 A 20020118; US 2003682554 A 20031010

J.

The apparatus has an operation terminal for operating plant e.g. thermal power plant equipment (31). Wireless local area network transceivers (36) at a plant worksite carry out wireless communication with the operation terminal. The terminal operates the plant equipment by transferring an operation request through the transceivers. A CRT display device (33) at the terminal displays a message in a central control terminal.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a plant operating method for operating plant equipment.

USE - Used for operating a plant e.g. thermal power plant equipment of a plant work site through central control room and a network (claimed).

ADVANTAGE - The apparatus facilitates the operation of the plant equipment directly from a work site by through the transceivers rather than form a limited place e.g. central control room, thus reducing the labor and man power. The apparatus facilitates the worksite operator to shut down the plant equipment timely and immediately without the need of making with the central control room, thus improving the safety of the plant.

DESCRIPTION OF DRAWINGS - The drawing shows a block diagram of a worksite monitoring/operating system as a plant operating apparatus.

18Input section

19CRT operation control section

20Display section

21Data-transfer section

22Transceiver section

30Personal computer
31Plant equipment
32Control device
33CRT display device
36Wireless transceivers

**K.** ..**Claims:**device to said control device through the wireless transceiver and the network to operate said **power plant** equipment without making contact with the central **control** room, andsaid operation device in the central **control** room is operatively configured to display state information concerning the alternative operation request issued by...

### What is claimed is:

- 1. A plant operating apparatus for operating plant equipment of a plant worksite through a central control room and a network, wherein: an operation terminal to be used for operating the plant equipment is provided, and a plurality of wireless transceivers are provided to appropriate points at the plant worksite for carrying out wireless communication with the operation terminal, and the operation of the plant equipment is also carried out through the operation terminal by transferring an operation request from the operation terminal via the wireless transceiver and the network.
- 2. A plant operating apparatus as claimed in claim 1, wherein a display device of the operation terminal displays an operating end image same as that displayed in the central control terminal.
- 3. A plant operating apparatus as claimed in claim 1, wherein when a tag for prohibiting the operation of the plant equipment is set/canceled from the plant worksite by use of the operation terminal, information concerning the setting/cancellation of the tag is transferred to the central control room and is displayed and outputted by a display device and a sound output device in the central control room.
- 4. A plant operating apparatus as claimed in claim 1, wherein information concerning the status of on-site operation at the plant worksite is transferred to the central control room.
- 5. A plant operating apparatus as claimed in claim 4, wherein the status of the on-site operation at the plant worksite is displayed and outputted by a display device and a sound output device in the central control room.
- 6. A plant operating method for operating plant equipment, wherein: the plant equipment is operated through a central control room and a network, and an operation terminal and a wireless transceiver are provided so as to carry out wireless communication, and the operation of the plant equipment is also carried out through the operation terminal by transferring an operation request from the operation terminal via the wireless transceiver and the network.

| 7. A plant operating method as claimed in claim 6, wherein information concerning the         |
|---|
| status of on-site operation at the plant worksite is transferred to the central control room. |
|   |
|   |
|   |
|   |

68/5,K/19 (Item 19 from file: 350) <u>Links</u>
Fulltext available through: Order File History

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0013974102 & & Drawing available WPI Acc no: 2004-154950/200415 XRPX Acc No: N2004-123879

Monitoring method for e.g. personal digital assistant, involves translating received information into corresponding device-independent user interface data, and displaying translated data on client, using user interface

Patent Assignee: MARQUES T (MARQ-I)

Inventor: MARQUES T

Patent Family (1 patents, 1 & countries)

| Patent<br>Number   | Ki<br>nd | Date         | Application<br>Number | Ki<br>nd | Date         | Upda<br>te | Ty<br>pe |
|--------------------|----------|--------------|-----------------------|----------|--------------|------------|----------|
| US 20040001<br>095 | A1       | 200401<br>01 | US 2002188<br>258     | A        | 200207<br>01 | 2004<br>15 | В        |

The requested information are transmitted from the **servers**, to a client. The received information are translated into corresponding device-independent user interface data, by the client. The translated data is then displayed on the client, using user interface. DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- B. method for monitoring and controlling device; and
- 3. system for monitoring and controlling device.

A.

USE - For monitoring operation of devices such as household appliance e.g. television and network appliances e.g. personal digital assistant and mobile phone. ADVANTAGE - Enables monitoring the operation of the devices, easily. DESCRIPTION OF DRAWINGS - The figure shows a sample audio control adjustment screen.

B. Monitoring method for e.g. personal digital assistant, involves translating received information into corresponding device-independent user interface data, and displaying translated data... Alerting Abstract ... NOVELTY - The requested information are transmitted from the servers, to a client. The received information are translated into corresponding device-independent user interface data... ... method for monitoring and controlling device; and system for monitoring and controlling device. ... ... USE - For monitoring operation of devices such as household appliance e.g. television and network appliances e.g. personal digital assistant and mobile phone.... ... ADVANTAGE - Enables monitoring the operation of the devices, easily.... ... DESCRIPTION OF DRAWINGS - The figure shows a sample audio control adjustment screen. Abstracts:management using in its preferred embodiment, a software-based process that enables devices such as PDA's and mobile phones to discover, monitor, and control electronic devices in diverse applications such home entertainment, mobile computing, automotive systems, data

networking, and household and office automation. The system comprises a user interface residing typically on a handheld device, a lightweight embedded agent that runs on all managed devices, and a wireless communication infrastructure that allows wireless communication between the interface and all devices, regardless of device type or manufacturer. The user interface provides users with a common look-and-feel for managing all devices. Claims: What is claimed is: 1. A method for monitoring devices, the method comprising: a. connecting one or more device servers to a display client; b. the display client requesting transmission from each of the device servers of device-specific data; c. the device servers transmitting the requested information to the display client; d. the display client receiving the device-specific data; e. the display client translating the device-specific data into a device-independent user...

### What is claimed is:

- 1. A method for monitoring devices, the method comprising: a connecting one or more device servers to a display client; b. the display client requesting transmission from each of the device servers of device-specific data; c. the device servers transmitting the requested information to the display client; d. the display client receiving the device-specific data; e. the display client translating the device-specific data into a device-independent user interface; and f. displaying of the received data on the display client using the device-independent user interface.
- 2. A method for monitoring and controlling devices, the method comprising: a. connecting one or more device servers to a display client; b. the display client requesting transmission from each of the device servers of device-specific data; c. the device servers transmitting the requested information to the display client; d. the display client receiving the device-specific data; e. the display client generating a device-independent user interface using the device-specific data; f. displaying the device-specific data on the display client using the generated device-independent user interface; g. accepting user input resulting from the user interacting with the user interface displayed on the display client; and h. controlling the device by sending the commands from the display client to the device that were selected by the user's interaction.
- 3. A method for monitoring and controlling devices, the method comprising: a. discovering one or more devices automatically by a display client when the client moves into the range of the device; b. establishing a connection session between the display client and the detected device; c. conveying information from the device to the display client regarding the state and capabilities of the device; d. generating by the display client of a device-independent user interface to display the device information; e. displaying the device-independent user interface on the display client; f. controlling the device by the user selecting an option from the device-independent user interface on the display client; g. sending a command to the device based on the user's selection from the device-independent user interface on the display client; and h. terminating the session when the display client moves out of the range of the device.

- 4. A system for monitoring and controlling devices, the system comprising: a. means for discovering one or more devices automatically by a display client when the client moves into the range of the device; b. means for establishing a connection session between the display client and the detected device; c. means for conveying information from the device to the display client regarding the state and capabilities of the device; d. means for generating by the display client of a device-independent user interface to display the device information; e. means for displaying the device-independent user interface on the display client; f. means for controlling the device by the user selecting an option from the device-independent user interface on the display client g. means for sending a command to the device based on the user's selection from the device-independent user interface on the display client; and h. means for terminating the session when the display client moves out of the range of the device.
- 5. A method for monitoring devices, the method comprising: a. connecting a display client to a communication network; b. connecting a one or more device servers to the communication network; c. the display client requesting transmission from each of the device servers of device-specific data; d. the device servers transmitting the requested information to the display client; e. the display client receiving the device-specific data; f. the display client generating a device-independent user interface using the device-specific data; and g. displaying of the received data on the display client using the device-independent user interface.
- 6. A method for monitoring and controlling devices, the method comprising: a. connecting a display client to a communication network; b. connecting one or more device servers to the communication network; c. the display client requesting transmission from each of the device servers of device-specific data; d. the device servers transmitting the requested information to the display client; e. the display client receiving the device-specific data; f. the display client translating the device-specific data into a device-independent user interface; g. displaying the received data on the display client using the device-independent user interface; h. accepting user input resulting from the user interacting with the device-independent user interface displayed on the display client; and i. controlling the device by sending the selected commands from the display client to the device.
- 7. A system for monitoring and controlling devices, the system comprising: a. means for connecting a display client to a communication network; b. means for connecting one or more device servers to the communication network; c. means for the display client requesting transmission from each of the device servers of device-specific data; d. means for the device servers transmitting the requested information to the display client; e. means for the display client receiving the device-specific data; f. means for the display client translating the device-specific data into a device-independent user interface; g. means for displaying the received data on the display client using the device-independent user interface layout; h. means for accepting user input resulting from the user interacting with the device-independent user interface displayed on the display client; and i. means for controlling the device by sending the selected commands from the display client to the device.

- 8. The method of claim 2, 3, or 6, further comprising: a. transmitting to the display client by the device servers of control information on operations that the devices have in common; b. displaying of the in-common operations on the display client in the device-independent user interface; c. accepting user input resulting from user interaction with the device-independent user interface on the display client; and d. controlling multiple servers by simultaneously sending in-common commands to multiple servers at once.
- 9. The system of claim 4 or 7, further comprising: a. means for transmitting to the display client by the device servers of control information on operations that the devices have in common; b. means for displaying of the in-common operations on the display client in the device-independent user interface; c. means for accepting user input resulting from user interaction with the device-independent user interface on the display client; and d. means for controlling multiple servers by simultaneously sending in-common commands to multiple servers at once.
- 10. The method of claim 1, 2, 3, 5, or 6, further comprising: a. requesting by the display client on an automatic and continually repeated basis information from the device server regarding the performance of the device; b. sending of the performance information by the device server to the display client; and c. displaying the received information on the display client in the device-independent user interface.
- 11. The system of claim 4 or 7, further comprising: a. means for requesting by the display client on an automatic and continually repeated basis information from the device server regarding the performance of the device; b. means for sending of the performance information by the device server to the display client; and c. means for displaying the received information on the display client in the device-independent user interface.
- 12. The method of claim 1, 2, 3, 5, or 6, further comprising: a. requesting by the display client on an automatic and continually repeated basis information from the device server regarding the environment surrounding the device; b. sending of the environmental information by the device server to the display client; and c. displaying the received information on the display client in the device-independent user interface.
- 13. The system of claim 5 or 7, further comprising: a. means for requesting by the display client on an automatic and continually repeated basis information from the device server regarding the environment surrounding the device; b. means for sending of the environmental information by the device server to the display client; and c. means for displaying the received information on the display client in the device-independent user interface.
- 14. The method of claim 12, further comprising: a. displaying by the display client as part of the device-independent user interface of alarms when information received from the device is outside configured performance ranges.

- 15. The system of claim 13, further comprising: a. means for displaying by the display client as part of the device-independent user interface of alarms when information received from the device is outside configured performance ranges.
- 16. The method of claim 14, further comprising: a. displaying by the display client as part of the device-independent user interface of alarms when received information on environmental parameters is outside configured ranges.
- 17. The system of claim 15, further comprising: a. means for displaying by the display client as part of the device-independent user interface of alarms when received information on environmental parameters is outside configured ranges.
- 18. The method of claim 1, 2, 3, 5, or 6, further comprising: a. entering into each device server of a list of the identifications of display clients that are authorized to receive from the individual device server; b. protecting access to the list of the authorized display clients by an encrypted password; c. requesting by each device server upon connection to each display client of the display client's identification; and d. terminating by the device server of the connection between it and the display client if that display client's identification is not on the list of authorized display clients.
- 19. The system of claim 4 or 7, further comprising: a. means for entering into each device server of a list of the identifications of display clients that are authorized to receive information from the individual device server; b. means for protecting access to the list of the authorized display clients by an encrypted password; c. means for requesting by each device server upon connection to each display client of the display client's identification; and d. means for terminating by the device server of the connection between it and the display client if that display client's identification is not on the list of authorized display clients.
- 20. The method of claim 18, further comprising: a. entering in the entry for each display device contained in the authorization lists on each device server a designation whether the particular display device has read only or both read and write permission; b. checking by each device server upon access by a display client whether the display client is authorized for read only or both read and write access; and c. allowing the modification of data on the device server by the display client only if the corresponding entry on the authorization list for that display client allows both read and write access.
- 21. The method of claim 19, further comprising: a. means for entering in the entry for each display device contained in the authorization lists on each device server a designation whether the particular display device has read only or both read and write permission; b. means for checking by each device server upon access by a display client whether the display client is authorized for read only or both read and write access; and c. means for allowing the modification of data on the device server by the display client only if the corresponding entry on the authorization list for that display client allows both read and write access.

- 22. The method of claim 1, 2, 3, 5, or 6, wherein connecting includes connecting using a point-to-point communication protocol.
- 23. The method of claim 1, 2, 3, 5, or 6, wherein connecting includes connecting the display client to the device servers using a wireless connection.
- 24. The method of claim 23, wherein the detection range of the device is about ten meters.
- 25. The method of claim 23, wherein the detection range of the device is less than ten meters.
- 26. The method of claim 23, wherein the detection range of the device is less than twenty meters.
- 27. The method of claim 23, wherein the detection range of the device is less than thirty 10 meters.
- 28. The method of claim 23, wherein the detection range of the device is more than ten meters.
- 29. The method of claim 23, wherein connecting includes connecting the display client to one or more of the device servers using Bluetooth protocols.
- 30. The method of claim 1, 2, 3, 5, or 6, wherein connecting includes connecting the display client to the device servers using a wire connection.
- 31. The method of claim 1, 2, 3, 5, or 6, wherein the display client runs on a handheld.
- 32. The method of claim 2, 3, or 6, wherein the device-specific data includes a schema including the names of all configurable elements, and for each configurable element its data type, range, default values, documentation, and security information.
- 33. The method of claim 2, 3, or 6, wherein the generating of the display includes on-the-fly mapping of data types to user interface components for data manipulation.
- 34. The method of claim 33, wherein the mapping includes using layout templates for data manipulation and containing semantics for element containment, multiplicity, and grouping.

68/5,K/21 (Item 21 from file: 350) **Links** 

Fulltext available through: Order File History

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0013845139 & & *Drawing available* 

WPI Acc no: 2004-023036/200402 XRPX Acc No: N2004-017808

Vending machines managing system, has main machine to process data transmitted through local area network from sub-vending machine that comprises Bluetooth communication module to transmit data for regulating vending mechanism

Patent Assignee: YEO T (YEOT-I); YEO T S (YEOT-I)

Inventor: YEO T; YEO T S

Patent Family (5 patents, 30 & countries)

| Patent<br>Number   | Ki<br>nd | Date         | Application<br>Number | Ki<br>nd | Date         | Upda<br>te | Ty<br>pe |
|--------------------|----------|--------------|-----------------------|----------|--------------|------------|----------|
| WO 2003098<br>561  | A1       | 200311<br>27 | WO 2003KR<br>973      | A        | 200305<br>16 | 2004<br>02 | В        |
| KR 2003089<br>626  | A        | 200311<br>22 | KR 2002270<br>85      | A        | 200205<br>16 | 2004<br>20 | Е        |
| JP 20055263<br>25  | W        | 200509<br>02 | WO 2003KR<br>973      | A        | 200305<br>16 | 2005<br>59 | Е        |
|                    |          |              | JP 20045059<br>81     | A        | 200305<br>16 |            |          |
| CN 1653495         | A        | 200508<br>10 | CN 2003811<br>187     | A        | 200305<br>16 | 2005<br>72 | Е        |
| US 20060096<br>997 | A1       | 200605<br>11 | WO 2003KR<br>973      | A        | 200305<br>16 | 2006<br>33 | Е        |
|                    |          |              | US 2005514<br>479     | A        | 200512<br>19 |            |          |

- A. Priority Applications (no., kind, date): KR 200227085 A 20020516
- **B.** The system has a main machine (110) with a **controller** to regulate a mechanism and to process data transmitted from each sub-vending machine (120-1-120-n) to store it in a memory through a **wireless** local area **network** (102). Each sub-vending machine comprises a **Bluetooth** communication module to transmit data to the **controller** through a data processing section, to regulate the mechanism.

USE - Used for managing vending machines in an office building, and convenience store.

ADVANTAGE - The system enables a servicer to easily know the stock levels and the sales amount, without the need to periodically visit and check the machines. The system effectively manages the machines from a remote place using a **wire** or **wireless** Internet system. The system enables a customer to call a servicer using the **Blue tooth** communication module installed on each vending machine without using a separate communication unit, when the vending machine does not operate properly. DESCRIPTION OF DRAWINGS - The drawing shows a schematic view of a vending machine managing system.

- 102 Wireless local area network
- 110 Main machine
- 120-1-120-n Sub-vending machines
- 130 Vending machine website
- 140 Personal digital assistant

- C. Vending machines managing system, has main machine to process data transmitted through local area network from sub-vending machine that comprises Bluetooth communication module to transmit data for regulating vending mechanism Alerting Abstract ...NOVELTY The system has a main machine (110) with a controller to regulate a mechanism and to process data transmitted from each sub-vending machine (120-1-120-n) to store it in a memory through a wireless local area network (102). Each sub-vending machine comprises a Bluetooth communication module to transmit data to the controller through a data processing section, to regulate the mechanism. ...check the machines. The system effectively manages the machines from a remote place using a wire or wireless Internet system. The system enables a customer to call a servicer using the Blue tooth communication module installed on each vending machine without using a separate communication unit, when the... ...102 Wireless local area network ... ...140 Personal digital assistant
- D. Abstracts: A system for managing a plurality of vending machines from a main vending machine using a management **network**, without the need to periodically visit and check all the machines, and effectively managing a plurality of vending machines even from a remote place using a wire or wireless Internet system. The main vending machine includes a controller for controlling a vending machine mechanism and processing data transmitted from each sub-vending machine to store it in a memory: a **Bluetooth** communication module for **transmitting** various data from each sub-vending machine to the controller; a display for displaying sales and management information of each sub-vending machine, s a moving picture outputted by a graphic controller according to a signal outputted from the controller; and a keypad for controlling the controller and the display and selecting items... ... Disclosed is a system for managing a plurality of vending machines from a main vending machine using a management network, without the need to periodically visit and check all the machines, and effectively managing a plurality of vending machines even from a remote place using a wire or wireless Internet system. The main vending machine comprises a controller for controlling a vending machine mechanism and processing data transmitted from each sub-vending machine to store it in a memory: a Bluetooth communication module for transmitting various data from each sub-vending machine to the controller; a display means for displaying sales and management information of each sub-vending machine, as well as a moving picture outputted by a graphic controller according to a signal outputted from the controller; and a keypad for controlling the controller and the display means and selecting items. Each sub-vending machine comprises: a Bluetooth communication module for communicating with the main vending machine; a controller for receiving and transmitting various data from and to the Bluetooth communication module through a data processing section and controlling a vending machine mechanism; and a sensor for transmitting data concerning items on sale to the controller. ... ...
- E. ...Claims:in real time even from a remote place, wherein a main vending machine and a plurality of sub-vending machines are connected via a local area network (LAN) and said main vending machine can access a vending machine management server website through a wire or wireless communication network, whereinsaid main vending machine comprises:a vending machine mechanism composed of mechanical devices for containing items and dispensing a selected item according to

a **control** signal; a first input means; a local **area** communication means for communicating with said sub-vending machines via LAN; and a controller for requesting payment is an item is selected **through** said first input means, **controlling** said vending machine mechanism to dispense the selected item if payment is made according to a predetermined process, storing information received from said subvending machines through said local area communication means in a **memory**, and transmitting information about each sub-vending machine to said vending machine management server website through said wire or wireless communication network according to a predetermined process, and each of said sub-vending machines comprises:a vending machine mechanism composed of mechanical devices for containing items and dispensing a selected item according to a control signal; a second input means; a local area communication means for communicating with said main vending machine via LAN; and a controller for requesting payment if an item is selected through said second input means, controlling said vending machine mechanism to dispense the selected item if payment is made according to a predetermined process, and transmitting information about the state of the subvending machine to said main vending machine through said local area communication...

68/5,K/28 (Item 28 from file: 350) Links

Fulltext available through: Order File History

Derwent WPIX

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0013658750 & & *Drawing available* 

WPI Acc no: 2003-754935/200371

Related WPI Acc No: 1999-443032; 2000-236839; 2001-024340; 2001-366587; 2001-

416523; 2001-457133; 2001-646979; 2002-009859; 2002-279826; 2002-350700; 2002-

350799; 2002-382547; 2002-415401; 2002-415402; 2002-415403; 2002-442981; 2002-

673107; 2003-039528; 2003-118989; 2003-605902; 2003-800275; 2003-842592; 2004-

293943; 2004-496981; 2005-010011; 2005-239990; 2005-401488; 2005-628511; 2005-

656551; 2005-783883; 2006-633556; 2007-070172; 2008-A57374

XRPX Acc No: N2003-604892

Wireless communication network for automated monitoring system, identifies remote devices corresponding to sensor data signal, and provides signal-related data to host computer through wide area network

Patent Assignee: STATSIGNAL SYSTEMS INC (STAT-N); STATSIGNAL IPC LLC

(STAT-N)

Inventor: PETITE T D

Patent Family (2 patents, 1 & countries)

| Patent<br>Number   | Ki<br>nd | Date         | Application<br>Number | Ki<br>nd | Date         | Upda<br>te | •       |
|--------------------|----------|--------------|-----------------------|----------|--------------|------------|---------|
| US 20020019<br>725 |          | 200202<br>14 |                       | A        | 199810<br>14 | 2003<br>71 | pe<br>B |
|                    |          |              | US 1999271<br>517     | A        | 199903<br>18 |            |         |
|                    |          |              | US 1999412            | A        | 199910       |            |         |

|            |    |              | 895               |   | 05           |            |   |
|------------|----|--------------|-------------------|---|--------------|------------|---|
|            |    |              | US 1999439<br>059 | A | 199911<br>12 |            |   |
|            |    |              | US 2001812<br>809 | A | 200103<br>20 |            |   |
|            |    |              | US 2001925<br>269 | A | 200108<br>09 |            |   |
| US 7103511 | B2 | 200609<br>05 | US 1998172<br>554 | A | 199810<br>14 | 2006<br>60 | Е |
|            |    |              | US 1999271<br>517 | A | 199903<br>18 |            |   |
|            |    |              | US 1999412<br>895 | A | 199910<br>05 |            |   |
|            |    |              | US 1999439<br>059 | A | 199911<br>12 |            |   |
|            |    |              | US 2001812<br>809 | A | 200103<br>20 |            |   |
|            |    |              | US 2001925<br>269 | A | 200108<br>09 |            |   |

**F.** A wireless transceiver (125) transmits original data and repeated data messages with unique identifier and sensor data signal received from remote devices, using predefined communication protocol, to a site controller (150). The controller identifies the remote devices corresponding to data signal, and provides signal-related data to host computer through wide area network (120).

USE - For use in automated **monitoring** system used for **monitoring** and **controlling** remote **devices** such as **manufacturing** apparatus, inventory system, residential system, electric utility **system**, carbon monoxide **detector**, door position **sensor**, heating, ventilating, air conditioning (HVAC) **system**, lighting **system**, smoke **detector**, thermostat, security **system**, glass break alarm, public telephone booth, cable television set-top box, vending machine, industrial trash compactors, building lift, courier drop box, time clock system, automated teller machine, self- service copier, water treatment plant, coal burning **power plant** and coke fueled steel plant, through host **computer** connected to wide area **network** (WAN), Internet and **intranet**.

ADVANTAGE - Simplifies the construction of **wireless** communication device and reduces the construction and operating costs of device, and the need for large memory.

DESCRIPTION OF DRAWINGS - The figure shows the block diagram of automated **monitoring system**.

- 100 automated monitoring system
- 110 application server
- 120 WAN
- 125 transceiver
- 135 sensor
- 150 site controller
- 155 laptop computer
- 160 work station

- G. A wireless transceiver (125) transmits original data and repeated data messages with unique identifier and sensor data signal received from remote devices, using predefined communication protocol, to a site controller (150). The controller identifies the remote devices corresponding to data signal, and provides signal-related data to host computer through wide area network (120). USE - For use in automated monitoring system used for monitoring and controlling remote devices such as manufacturing apparatus, inventory system, residential system, electric utility system, carbon monoxide detector, door position sensor, heating, ventilating, air conditioning (HVAC) system, lighting system, smoke detector, thermostat, security system, glass break alarm, public telephone booth, cable television set-top box, vending machine, industrial trash... ...box, time clock system, automated teller machine, self- service copier, water treatment plant, coal burning power plant and coke fueled steel plant, through host computer connected to wide area network (WAN), Internet and intranet. ... ... ADVANTAGE - Simplifies the construction of wireless communication device and reduces the construction and operating costs of device, and the need for... ... DESCRIPTION OF DRAWINGS - The figure shows the block diagram of automated monitoring system. ... ... 100 automated monitoring **system** ... ...110 application **server** ... ...120 **WAN** ... ...125 **transceiver** ... ...135 sensor ... ...150 site controller ... ...155 laptop computer Technology Focus INDUSTRIAL STANDARDS - The wireless transceiver conforms to Bluetooth and IEEE 802.11 standards. Extension Abstract
- H. Abstracts: Wireless communication networks for monitoring and controlling a plurality of remote devices are provided. Briefly, one embodiment of a wireless communication network may comprise a plurality of wireless transceivers having unique identifiers. Each of the plurality of wireless transceivers may be configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol. The original data message may comprise the corresponding unique identifier and sensor data signal. Each of the plurality of wireless transceivers may be configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol. The repeated data message may include the sensor data signal and the corresponding unique identifier. Furthermore, at least one of the plurality of wireless transceivers may be further configured to provide the original data messages and the repeated data messages to a site controller connected to a wide area **network**. The site **controller** may be configured to manage communications between the wireless communication network and a host computer connected to the wide area network. Wireless ... ... Wireless communication networks for monitoring and controlling a plurality of remote devices are provided. Briefly, one embodiment of a wireless communication network may comprise a plurality of wireless transceivers having unique identifiers. Each of the plurality of wireless transceivers may be configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol. The original data message may comprise the corresponding unique identifier and sensor data signal. Each of the plurality of wireless transceivers may be configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol. The repeated data

message may include the sensor data signal and the corresponding unique identifier. Furthermore, at least one of the plurality of wireless transceivers may be further configured to provide the original data messages and the repeated data messages to a site controller connected to a wide area network. The site controller may be configured to manage communications between the wireless communication network and a host computer connected to the wide area network. Claims:1. A wireless communication network adapted for use in an automated monitoring system for monitoring and controlling a plurality of remote devices via a host computer connected to a wide area network, the wireless communication network comprising:a plurality of wireless transceivers having unique identifiers, each of the plurality of wireless transceivers configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal and the corresponding unique identifier; and site controller in communication with at least one of the plurality wireless transceivers, the site controller configured to receive the original data messages and the repeated data messages, identify the remote device associated with the corresponding sensor data signal, and provide information related to the sensor data signal to the wide area network for delivery to the host computer.... ... The invention claimed is:1. A wireless communication network adapted for use in an automated monitoring system for monitoring and controlling a plurality of remote devices via a host computer connected to a wide area network, the wireless communication network comprising: a plurality of wireless transceivers having unique identifiers, each of the plurality of wireless transceivers configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal and the corresponding unique identifier; anda site controller in communication with at least one of the plurality of wireless transceivers, the site controller configured to receive the original data messages and the repeated data messages, identify the remote device associated with the corresponding **sensor** data signal, and provide information related to the **sensor** data signal to the wide area **network** for delivery to the host **computer.>** 

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68/5,K/48 (Item 48 from file: 350) **Links** 

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0011031239 & & Drawing available WPI Acc no: 2001-657189/200175 Related WPI Acc No: 2005-140317

XRPX Acc No: N2001-489851

Remote diagnostic system for electronic control networks, has interface which provides wireless communication link between computerized diagnostic device and wireless linking device

Patent Assignee: I/O CONTROLS CORP (IOCO-N)

Inventor: YING J

Patent Family (4 patents, 22 & countries)

| Patent Number  | Kind | Date     | Application<br>Number | Kind      | Date     | Update | Ту |
|----------------|------|----------|-----------------------|-----------|----------|--------|----|
| WO 2001077765  | A1   | 20011018 | WO 2000US9644         | Α         | 20000410 | 200175 | В  |
| US 20020181405 | A1   | 20021205 | US 2002165384         | A         | 20020606 | 200301 | Е  |
| US 20050283285 | A1   | 20051222 | US 2000593170         | A         | 20000612 | 200603 | Е  |
|                |      |          | US 200543447          | A         | 20050125 |        |    |
| US 7398083     | B2   | 20080708 | US 2000593170         | A         | 20000612 | 200847 | Е  |
|                |      |          | US 200543447          | Α         | 20050125 |        |    |
|                | •    |          | Continuation          | of patent | US 6     | 847916 |    |

I. A self-contained, portable wireless interface device (196) communicates with a computerized diagnostic device (194) through wired connection. The interface device also provides a wireless communication link between the computerized diagnostic device and a wireless linking device connected to the control network (199).

DESCRIPTION - An INDEPENDENT CLAIM is also included for method of testing and diagnosing **control network**.

USE - For testing and diagnosing control networks such as programmable logic controller (PLC) based multiplexed control systems, network controlled multiplexed control systems and hierarchical master-slave multibus control systems, used in manufacturing transportation, especially for controlling machinery, sensors, electronics and other system components. Also for controlling components used in manufacture of vehicular systems.

ADVANTAGE - The wireless interface which is a portable unit, facilitates easy transport. Thus, simplifies testing and diagnosis by the operator, and reduces/eliminates need for operator to carry bulky, cumbersome manuals and circuit blue-prints. Flexible remote testing and diagnosis is achieved in a rapid, reliable and efficient manner.

DESCRIPTION OF DRAWINGS - The figure illustrates the testing and diagnosis technique of electronic **control network**.

- 194 Computerized diagnostic device
- 196 Portable wireless intermediary device
- 199 Control network
- J. Remote diagnostic system for electronic control networks, has interface which provides wireless communication link between computerized diagnostic device and wireless linking device Original Titles: System for providing remote access to diagnostic information over a wide area network ... ... Method and system for monitoring, controlling, and locating portable devices performing remote

diagnostic analysis of **control network** ... ... Method and **system** for **monitoring**, controlling, and locating portable devices performing remote diagnostic analysis of control network ... ...METHOD AND SYSTEM FOR REMOTE ANALYSIS OF **CONTROL NETWORK Alerting Abstract** ...NOVELTY - A self-contained, portable wireless interface device (196) communicates with a computerized diagnostic device (194) through wired connection. The interface device also provides a wireless communication link between the computerized diagnostic device and a wireless linking device connected to the control network (199). DESCRIPTION -An INDEPENDENT CLAIM is also included for method of testing and diagnosing control network. ... ... USE - For testing and diagnosing control networks such as programmable logic controller (PLC) based multiplexed control systems, network controlled multiplexed control systems and hierarchical master-slave multibus **control** systems, used in manufacturing transportation, especially for controlling machinery, sensors, electronics and other system components. Also for controlling components used in manufacture of vehicular systems... ...ADVANTAGE - The wireless interface which is a portable unit, facilitates easy transport. Thus, simplifies testing and diagnosis by... ... DESCRIPTION OF DRAWINGS - The figure illustrates the testing and diagnosis technique of electronic control network. ... ... 194 Computerized diagnostic device... ... 196 Portable wireless intermediary device... ... 199 Control

**K.** Abstracts: A system for facilitating diagnosis and maintenance of one or more control networks located on a mobile conveyance comprises one or more wireless ground stations configured to communicate over a wireless communication channel with a control network via a wireless interface. A local area computer network receives and responds to messages to or from the control network via the wireless ground stations. The local area computer network comprises one or more user terminals, a server computer, a database comprising diagnostic information relating to said control network, and, optionally, a replacement parts database and/or job auction database. The local area network further includes a wide area network interface, which allow either additional diagnostic information relating to the control network to be retrieved, or parts to be manually or automatically ordered from remote vendor sites. The system may also include wireless handheld, portable equipment capable of communicated with the local area network and/or wide area network, for allowing service personnel to perform diagnostic analysis, maintenance, and testing of the control network(s... ... A system for monitoring, controlling, and locating portable computerized devices performing remote diagnostic analysis of control networks. The portable, wireless equipment includes computerized display device connected to a wireless intermediary device for allowing a wireless connection to be made to a **control network**. The **computerized** diagnostic device may be embodied as a personal digital assistant (PDA) having a graphical screen display, on which may be displayed the **network** nodes and connections of the control network presented against a backdrop of a transit vehicle or other facility shown in three-dimensional, rotatable images. The wireless equipment may allow the operator to force individual system components to output states, and provide for real time **monitoring**. The portable, **wireless equipment** is programmed with information pertaining to the connections and locations of the components in the control **network**, thereby simplifying diagnosis or testing by the operator. The portable, wireless equipment may be operated within a network of wireless communication cells, whereby transmitted messages between the portable, wireless equipment and

the **control networks** may be **monitored** and the position of each device determined. Graphical images of the control networks may be displayed or rotated based upon the operator's relative position and orientation within respect to the control network. ... ... A system for monitoring, controlling, and locating portable computerized devices performing remote diagnostic analysis of control networks. The portable, wireless equipment includes computerized display device connected to a wireless intermediary device for allowing a wireless connection to be made to a control network. The computerized diagnostic device may be embodied as a personal digital assistant (PDA) having a graphical screen display, on which may be displayed the **network** nodes and connections of the **control network** presented against a backdrop of a transit vehicle or other facility shown in three-dimensional, rotatable images. The wireless equipment may allow the operator to force individual system components to output states, and provide for real time monitoring. The portable, wireless equipment is programmed with information pertaining to the connections and locations of the components in the control network, thereby simplifying diagnosis or testing by the operator. The portable, wireless equipment may be operated within a **network** of **wireless** communication cells, whereby transmitted messages between the portable, wireless equipment and the control **networks** may be **monitored** and the position of each device **determined**. Graphical images of the control networks may be displayed or rotated based upon the operator's relative position and orientation within respect to the **control network**.... ... A system and method for monitoring, diagnosing and/or testing a control network (199) using portable, wireless equipment includes computerized display device (194) connected to a wireless intermediary device (196) for allowing a wireless connection to be made to a control network (199). The wireless equipment may allow the operator (193) to force individual system components to output states, and provide for real time monitoring. The portable, wireless equipment is programmed with information pertaining to the connections and locations of the components in the control network (199), thereby simplifying diagnosis or testing by the operator (193.......

L. ... Claims: is claimed is: 1. A system for facilitating diagnosis and maintenance of one or more control networks, comprising: a control network located on a mobile conveyance; a wireless interface connected to said control network; a wireless ground station configured to communicate over a wireless communication channel with said control network via said wireless interface; a local area computer **network** in communication with said wireless ground station, said local area computer network comprising a server computer; a database comprising diagnostic information relating to said control network; and a wide area network interface, whereby additional diagnostic information relating to said control network is obtainable from one or more remote **computers.... 1**. A system for facilitating diagnosis and maintenance of electronic control networks, comprising: a wireless diagnostic device, said wireless diagnostic device comprising a transmitter and receiver for communicating over a wireless communication channel with a control network via a control network wireless interface; andat least one wireless ground station, said at least one wireless ground station comprising a ground station receiver attuned to said wireless communication channel, whereby transmitted messages between said wireless diagnostic device and the control network over said wireless communication channel are **monitored**.... ... What is claimed is:1. A system for facilitating diagnosis and maintenance of electronic

M. control networks, comprising: a wireless diagnostic device, said wireless diagnostic device comprising a transmitter and receiver for communicating over a wireless communication channel with a vehicle control network to be diagnosed, via a control network wireless interface; andat least one wireless ground station, said at least one wireless ground station comprising a ground station receiver attuned to said wireless communication channel, whereby transmitted messages between said wireless diagnostic device and the vehicle control network over said wireless communication channel are monitored, and further comprising a user terminal; andand wherein the wireless diagnostic device and wireless ground station are configured to provide interactive communication between a first user of the wireless diagnostic device and a second user at the user terminal of the wireless ground station.

Station..

68/5,K/60 (Item 60 from file: 350) Links

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0010299418 & & Drawing available WPI Acc no: 2000-613101/200059 XRPX Acc No: N2000-454222

Remotely located device operating system e.g. for using paging or satellite paging to send trigger signals to remote devices

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE)

Inventor: KRAML M H

Patent Family (5 patents, 12 & countries)

| Patent<br>Number  | Ki<br>nd | Date         | Application<br>Number | Ki<br>nd | Date         | Upda<br>te | Ty<br>pe |
|-------------------|----------|--------------|-----------------------|----------|--------------|------------|----------|
| EP 1022701        | A2       | 200007<br>26 | EP 2000300<br>175     | A        | 200001<br>11 | 2000<br>59 | В        |
| CA 229394<br>6    | A1       | 200007<br>21 | CA 2293946            | A        | 200001<br>05 | 2000<br>59 | Е        |
| JP 2000261<br>866 | A        | 200009<br>22 | JP 20001234<br>5      | A        | 200001<br>21 | 2000<br>61 | Е        |
| US 6906636        | B1       | 200506<br>14 | US 1999245<br>101     | A        | 199901<br>21 | 2005<br>40 | Е        |
| CA 229394<br>6    | С        | 200703<br>13 | CA 2293946            | A        | 200001<br>05 | 2007<br>23 | Е        |

N. The system has a receiver which receives paging messages, the receiver is co-located with the remotely located device. The contents of received paging messages are compared to a set of allowed commands. A specific command is sent to the remotely located device, the specific command is **determined** based on a match found between the received paging message contents and one of the allowed commands. A response paging message is sent and a buffer receives the paging message from the receiver. DESCRIPTION - An INDEPENDENT CLAIM is included for a method for

operation of a remotely located device.

- USE For using paging or satellite paging to send trigger signals to remote devices. ADVANTAGE Provides way to remotely operate electronic or **mechanical devices** via **wireless** communications. Uses existing paging or satellite paging infrastructure to send trigger signals and/or commands to remote devices. DESCRIPTION OF DRAWINGS The figure shows a block diagram of an embodiment of a system for remote operation of one or more devices according to the invention.
- O. :Remote control of devices with paging messages Alerting Abstract ...commands. A specific command is sent to the remotely located device, the specific command is determined based on a match found between the received paging message contents and one of the... ...ADVANTAGE Provides way to remotely operate electronic or mechanical devices via wireless communications. Uses existing paging or satellite paging infrastructure to send trigger signals and/or commands
- P. Abstracts: The existing paging infrastructure is used to send commands to operate remotely-located electronic or mechanical devices. A paging message containing one or more preset commands, trigger signals, or command strings is... ... or may be a command that causes an operation to be performed in a software-controlled component of the target device. An alternate embodiment allows responses generated by the system and... ... the target device to be forwarded back to the initiator via a two-way paging transceiver. The target device either has the capability of generating one or more signals or other messages in response to the commands received, or the system has the capability of sensing the state of the target device after receipt of the commands. Responses generated by the target device may be sent to the optional signal buffer or directly to the paging transceiver, or may be received and modified by a response generation function that is part of... ... all the received commands or after the execution of any of the commands in a multi-command sequence, providing feedback to the initiator as the command sequence is processed. The initiator... ... The existing paging infrastructure is used to send commands to operate remotely-located electronic or mechanical devices. A paging message containing one or more pre-set commands, trigger signals, or command strings... ... or may be a command that causes an operation to be performed in a software-controlled component of the target device. An alternate embodiment allows responses generated by the system and... ... the target device to be forwarded back to the initiator via a two-way paging transceiver. The target device either has the capability of generating one or more signals or other messages in response to the commands received, or the system has the capability of **sensing** the state of the target device after receipt of the commands. Responses generated by the target device may be sent to the optional signal buffer or directly to the paging **transceiver**, or may be received and modified by a response generation function that is part of... ... all the received commands or after the execution of any of the commands in a multi-command sequence, providing feedback to the initiator as the command sequence is processed. The initiator... ... Claims: means for sending a specific command to said remotely located device, said specific command being determined based on a match found between said received paging message contents and one of said... ... 1. A system for operation of a remotely located **computer-controlled** device, comprising:receiver means for receiving at least one paging message, each paging message including content data, said receiver means co-located with said remotely located computer-controlled

device; means for comparing the content data of each said at least one paging message... ... allowed commands; and means for sending at least one specific command to said remotely located **computer-controlled** device, each specific command **determined** as a result of the comparing of the content data of each said at least... ... wherein the content data includes a program, wherein each specific command causes said remotely located **computer-controlled** device to perform at least two actions, andwherein one of said at least one specific command sent to said remotely located **computer-controlled** device includes the program...

remotery rocated **computer-controlled** device includes the program...

68/5,K/72 (Item 72 from file: 350) <u>Links</u>
Fulltext available through: <u>Order File History</u>

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0009708605 & & Drawing available WPI Acc no: 1999-520123/199944 XRPX Acc No: N1999-386934

Automatic lubricating oil feeding control system for industrial equipment

Patent Assignee: KLT JH (KLTK-N); KOREA LUBE-TECH CO LTD (KOLU-N); YANG

Y J (YANG-I)

Inventor: YANG Y J; YUNG J Y

Patent Family (6 patents, 26 & countries)

| Patent            | Ki | Date         | Application       | Ki | Date         | Upda       | Ty |
|-------------------|----|--------------|-------------------|----|--------------|------------|----|
| Number            | nd | 2400         | Number            | nd | Dute         | te         | pe |
| EP 933581         | A1 | 199908<br>04 | EP 1998303<br>462 | A  | 199805<br>01 | 1999<br>44 | В  |
| US 6101427        | A  | 200008<br>08 | US 1998572<br>57  | A  | 199804<br>08 | 2000<br>40 | Е  |
| KR 1999068<br>893 | A  | 199909<br>06 | KR 1998279<br>4   | A  | 199802<br>02 | 2000<br>46 | Е  |
| KR 272677         | В  | 200104<br>02 | KR 1998279<br>4   | A  | 199802<br>02 | 2002<br>16 | Е  |
| EP 933581         | B1 | 200308<br>13 | EP 1998303<br>462 | A  | 199805<br>01 | 2003<br>55 | Е  |
| DE 6981714<br>4   | Е  | 200309<br>18 | DE 6981714<br>4   | A  | 199805<br>01 | 2003<br>69 | Е  |
|                   |    |              | EP 1998303<br>462 | A  | 199805<br>01 |            |    |

Q. - A host controller is programmed to supervise, check and display terminal state information. A transmitting/receiving section, coupled to the host controller via an interface, transmits command data of the host controller and receives the terminal state information data through a communication network. There is at least one terminal comprising a lubricating oil discharge control device with a mechanical unit to discharge lubricating oil. A microprocessor controls the operation of the mechanical unit.

DESCRIPTION - A **transmitting/receiving** section, coupled to the lubricating oil discharge **control** device, receives the command data from the host **controller** to

**control** the lubricating oil discharge **control** device and transmits to the host **controller** the terminal state information data resulting from a self-test of the lubricating oil discharge **control** device through the radio communication **network**. USE - The automatic lubricating oil feeding **control** system is used for industrial equipment.

ADVANTAGE - The system provides automatic centralized **control** for the lubrication system.

DESCRIPTION OF DRAWINGS - The drawing shows a block diagram conceptually illustrating the automatic lubricating oil feeding system.

R. Automatic lubricating oil feeding control system for industrial equipment ...Original Titles: Automatic lubricating oil feeding system capable of centralized control ... ......Automatic lubricating oil feeding system capable of centralized control via radio link. Alerting Abstract ... NOVELTY - A host controller is programmed to supervise, check and display terminal state information. A transmitting/receiving section, coupled to the host controller via an interface, transmits command data of the host controller and receives the terminal state information data through a communication network. There is at least one terminal comprising a lubricating oil discharge control device with a mechanical unit to discharge lubricating oil. A microprocessor controls the operation of the mechanical unit. DESCRIPTION - A transmitting/receiving section, coupled to the lubricating oil discharge control device, receives the command data from the host controller to control the lubricating oil discharge control device and transmits to the host controller the terminal state information data resulting from a self-test of the lubricating oil discharge **control** device through the radio communication **network**. ......USE - The automatic lubricating oil feeding **control** system is used for industrial equipment... ... ADVANTAGE - The system provides automatic centralized control for the lubrication system

**Abstracts:** An automatic lubricating oil feeding system which can centralistically control a plurality of dependent terminals to feed lubricating oil to required machine elements such as bearings at proper times, respectively, by receiving the operation state information from the respective terminals. The system includes a host controller (H) comprising a personal computer programmed to supervise, check, and display terminal state information, and an RF transmitting/receiving section, coupled to the personal computer via an interface, for transmitting command data of the personal computer and receiving the terminal state information data through a radio communication network; and at least **one** terminal (T) comprising a lubricating oil discharge **control** device (50) having a mechanical unit for discharging lubricating oil, a microprocessor for controlling the operation of the mechanical unit, and an RF transmitting/receiving section, coupled to the lubricating oil discharge control device, for receiving from the host controller the command data for controlling the lubricating oil discharge control device and transmitting to the host controller the terminal state information data resulting from a self-test of the lubricating oil discharge control device through the radio communication network. ... ... An automatic lubricating oil feeding system is disclosed which can centralistically **control** a **plurality** of dependent **terminals** to **feed** lubricating oil to required machine elements, such as bearings, at proper times by receiving the operation state information from the respective terminals. The system includes a host controller which utilizes a personal computer programmed to supervise, check, and display terminal state information, and an RF section, coupled to the personal computer via an interface, for transmitting command data of the personal computer and

receiving the terminal state information data through a radio communication network. The system further includes at least one terminal comprising a lubricating oil discharge control device having a mechanical unit for discharging lubricating oil, a microprocessor for controlling the operation of the mechanical unit, and an RF section, coupled to the lubricating oil discharge control device, for receiving from the host controller the command data for controlling the lubricating oil discharge control device and transmitting to the host controller the terminal state information data resulting from a self-test of the lubricating oil discharge **control** device through the radio communication network. Claims: 1. An automatic lubricating oil feeding system capable of centralized control, comprising: a host controller programmed to supervise, check, and display terminal state information, and a transmitting/receiving section, coupled to the host controller via an interface, for transmitting command data of the host controller and receiving the terminal state information data through a communication **network**; and at **least** one terminal comprising a lubricating oil discharge control device having a mechanical unit for discharging lubricating oil, a microprocessor for controlling the operation of the mechanical unit, and a transmitting/receiving section, coupled to the lubricating oil discharge control device, for receiving from the host controller the command data for controlling the lubricating oil discharge control device and transmitting to the host controller the terminal state information data resulting from a self-test of the lubricating oil discharge control device through the radio communication network. ... ... An automatic lubricating oil feeding system capable of centralized control, comprising: a host controller programmed to supervise, check, and display terminal state information, and a transmitting/receiving section, coupled to the host controller via an interface, for transmitting command data of the host controller and receiving the terminal state information data through a communication network; and at least one terminal comprising a lubricating oil discharge control device having a mechanical unit for discharging lubricating oil, a microprocessor for controlling the operation of the mechanical unit, and a transmitting/receiving section, coupled to the lubricating oil discharge control device, for receiving from the host controller the command data for controlling the lubricating oil discharge control device and transmitting to the host controller the terminal state information data resulting from a self-test of the lubricating oil discharge control device through the communication network. ...

... An automatic lubricating oil feeding system capable of centralized **control**, comprising: a host **controller** comprising a personal **computer** programmed to supervise, check, and display terminal state information, and an RF section, coupled to the personal **computer** via an interface, for transmitting command data of the personal **computer and** receiving the terminal state information **data** through a radio **communication network**; and at least one terminal capable of attachment to a machine element requiring lubricating oil and **comprising** a lubricating oil supply, a lubricating oil discharge **control** device **in** fluid communication with the machine element and having a mechanical unit **for** automatically discharging the lubricating oil directly to the machine element, a **microprocessor** for **controlling** operation of the mechanical unit, and an RF section, coupled to the lubricating **oil** discharge **control** device, for receiving from the host **controller** the command data for **controlling** the lubricating oil discharge **control** device and transmitting to the host **controller** the **terminal** state information data resulting from a self-test of the lubricating oil discharge **control** device **through** the radio communication **network**.

68/5,K/76 (Item 76 from file: 350) Links

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Derwent WPIX

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WPI Acc no: 1998-447046/199838 Related WPI Acc No: 2001-308407 XRAM Acc no: C1998-135615 XRPX Acc No: N1998-348473

# $\label{located} \textbf{Injection moulding control system - has remotely located controller connected to the mould by wire-less transmission}$

Patent Assignee: AMERICAN MSI CORP (AMMS-N); MOLDFLOW CORP (MOLD-N);

HUSKY INJECTION MOLDING SYSTEMS LTD (HUSK-N)

Inventor: TRIPLETT T

Patent Family (10 patents, 23 & countries)

| <b>D</b> ( )   | T70   | Patent Farmi | ly (10 patents, 23 & |    | <del>)</del> | TT 1 | TES. |
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| Number         | nd    | Date         | Number               | nd | Bute         | ate  | pe   |
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|                |       |              | EP 19989075          |    | 199802       |      |      |
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| 21          | Α | 08     | 6            | Α | 11     | 06   | Ŀ |
|             |   |        | JP 200820911 | ۸ | 200808 |      | · |
|             |   |        | 6            | A | 15     |      |   |

S. Injection moulding system has sensors (5) generating reporting signals in respect of conditions in, and controllers associated with, the injection mould (1), with a signal processing system (IMDT) which processes the reporting signals and feeds them to a transmitter which transmits the processed signals to a remote controller (4) by means other than hard wired connections carrying analogue signals.

The system, and a method and system in which the analogue signals are converted to digital form by the processing system, are claimed, together with a method and system of injection mould information transmission in which mould sensors (5) provide information which is processed in a thermally isolated enclosure (6) containing sensor input circuitry.

The signal processing circuits can include a junction box (8) between the **sensors** and the thermally isolated enclosure (6), and **sensor** conditioning input circuits, optical isolators, **multiplexers**, amplifiers, a-to-d converters, **microprocessor**, and **transmitter** in the enclosure (6).

USE - In **controlling** an injection moulding system, particularly one having **multiple** cavities and or hot runners with a large **number** of **sensors monitoring** temperature and pressure in various parts of the mould, and **controlling** various heaters, valves, etc..

ADVANTAGE - System allows the **number** of **wires** from the moulding machine to the remotely located **controller** to be drastically reduced, reducing problems due to bad connections, temperature variations, and the volume of cables.

T. Injection moulding control system... ...has remotely located controller connected to the mould by wire-less transmission Alerting Abstract ...Injection moulding system has sensors (5) generating reporting signals in respect of conditions in, and controllers associated with, the injection mould (1), with a signal processing system (IMDT) which processes the reporting signals and feeds them to a transmitter which transmits the processed signals to a remote controller (4) by means other than hard wired connections carrying analogue signals... ...claimed, together with a method and system of injection mould information transmission in which mould sensors (5) provide information which is processed in a thermally isolated enclosure (6) containing sensor input circuitry... ...The signal processing circuits can include a junction box (8) between the sensors and the thermally isolated enclosure (6), and sensor conditioning input circuits, optical isolators, multiplexers, amplifiers, a-to-d converters, microprocessor, and transmitter in the enclosure (6... ...USE - In controlling an injection moulding system, particularly one having multiple cavities and or hot runners with a large number of sensors monitoring temperature and

pressure in various parts of the mould, and **controlling** various heaters, valves, etc... ...ADVANTAGE - System allows the **number** of wires from the moulding machine to the remotely located **controller** to be drastically reduced, reducing problems due to bad connections, temperature variations, and the volume... Documentation Abstract Injection moulding system has sensors (5) generating reporting signals in respect of conditions in, and **controllers** associated with, the injection mould (1), with a signal processing system (IMDT) which processes the reporting signals and feeds them to a transmitter which transmits the processed signals to a remote controller (4) by means other than hard wired connections carrying analogue signals... ... claimed, together with a method and system of injection mould information transmission in which mould **sensors** (5) provide information which is processed in a thermally isolated enclosure (6) containing sensor input circuitry... ... USE - In controlling an injection moulding system, particularly one having multiple cavities and or hot runners with a large number of sensors monitoring temperature and pressure in various parts of the mould, and **controlling** various heaters, valves, etc... ... ADVANTAGE - System allows the **number** of wires from the moulding machine to the remotely located **controller** to be drastically reduced, reducing problems due to bad connections, temperature variations, and the volume... ... PREFERRED EMBODIMENT - The signal processing circuits can include a junction box (8) between the sensors and the thermally isolated enclosure (6), and sensor conditioning input circuits, optical isolators, multiplexers, amplifiers, a-to-d converters, microprocessor, and transmitter in the enclosure (6). Documentation **Abstract Image Abstracts:** The present invention relates to injection mold hot runner control devices and more particularly to an injection molding control device. The present invention utilizes a signal processor (13) to convert analog signals received from mold temperature **sensors** (5) into a digital signal in the vicinity of a mold (1) and to transmit such feedback signal to a receiver (4) connected to a controller at a location remote from the mold. The mold **controller** (4) processes the feedback signal and generates a corresponding control signal. The control signal is transmitted from the remotely located **controller** (4) to the **controlled device**, typically **mold** heaters. A single **controller** and a single mold signal processor may be used to be able to control numerous molds by utilizing signals on different lines or frequencies or in other means of signal... ... Specifically, While providing the structure and method for making information transmission from an injection molding sensor to a control means possible and easy, without making the connection by analog wiring troublesome and expensiveIn order to remove many connection parts which may raiselgenerate an error in a control system, the data transmission system which improves the reliability in a feedback **control** loop is provided. Injection molding **control** systems are a means (**sensor** 5) to producelgenerate at least 1 report signal, and at least 1 to-be-controlled means connected with the injection die 1, The signal processing means connected to the 1st transmitter that is comprised that the said report signal should be processed for use by the metal moldldie control means 4 released separated and provided, and transmits the said report signal to the said metal moldldie **control** means 4 by means other than an analog signal intermediary transportation|transmission line|wire connectionThese are provided.FIG. 3This invention relates to an injection molding apparatus and a procedure... ... is related with the structure and method for making information transmission from an injection molding **sensor** to a **control** means possible and easy, without making the connection by analog wiring troublesome and expensive. Moreover, since many connection parts

which may raise generate an error in a **control** system are made removable by the user, this invention improves the reliability in a feedback **control** loop... ... The present invention relates to injection mold hot runner control devices and more particularly to an injection molding control device which eliminates the conventional control cables to improve the quality of feedback signals received by the **controller** and the safety of the environment in which such systems are used. The present invention utilizes a signal processor to convert analog signals received from the mold temperature sensors into a digital feedback signal in the vicinity of the mold and to transmit such feedback signal to a receiver connected to a controller at a location remote from the mold. The mold controller processes the feedback signal and generates a corresponding **control** signal. The **control** signal is transmitted from the remotely located **controller** to the **controlled device**, typically the **mold** heaters. A single **controller** and a single mold signal processor may be used to be able to control numerous molds by utilizing signals on different lines or frequencies or in other means of signal... ... art. The system of the present invention enables the injection mold user to eliminate the **numerous** problems, difficulties and repair costs of the prior art as well as enabling the user to gain an improved feedback loop that was not feasible under **control** systems of the prior art... ... The present invention relates to injection mold hot runner control devices and more particularly to an injection molding control device. The present invention utilizes a signal processor (13) to convert analog signals received from mold temperature sensors (5) into a digital signal in the vicinity of a mold (1) and to transmit such feedback signal to a receiver (4) connected to a **controller** at a location remote from the mold. The mold controller (4) processes the feedback signal and generates a corresponding control signal. The **control** signal is transmitted from the remotely located **controller** (4) to the **controlled device**, typically **mold** heaters. A single **controller** and a single mold signal processor may be used to be able to control numerous molds by utilizing signals on different lines or frequencies or in other means of signal... ..... ... An injection mold information

**U. transmitter** apparatus, comprising:a) an injection mold (1);b) at least one injection mold **sensor** (5) providing information from said injection mold (1);c) a thermally isolated enclosure (6) mounted... ... a signal processor positioned within said thermally isolated enclosure (6), the signal processor comprising:i) sensor input circuitry (15) coupled to said injection mold sensor (5); andii) an analog-to-digital converter (14); ande) a controller (4) located at a location remote from said thermally isolated enclosure (6), said **controller** (4) arranged to receive digital signals from said converter (14) based on the information provided by the at least one injection mold... ... A means to produce generate at least 1 report signal, At least 1 tobe-controlled device connected with the injection die, The signal processing means in the metal moldldie **control** means by which remote arrangement positioning was carried out currently comprised so that the said report signal may be processed for useIt is an injection molding **control** system provided with these,Comprising:The said signal processing means is connected to the 1st transmitter that transmits the said report signal to the said metal moldldie **control** means by means other than an analog signal intermediary transportation|transmission line|wire connection, The injection molding **control** system characterized by the above-mentioned... ... An injection mold information transmitter apparatus, comprising:a) an injection mold;b) at least one **sensor** providing information from said injection mold;c) a thermally isolated enclosure;d) sensor input circuitry positioned within said thermally isolated

|     | converter located within said thermally isolated enclosure; andf) a <b>controller</b> located at a location remote from said thermally isolated enclosure, said <b>controller</b> arranged to receive digital signals from said converter based on the information from said <b>sensors.</b> |
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| NON | PATENT LITERATURE BIBLIOGRAPHIC DATABASES:   |
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enclosure and coupled to said injection mold **sensor**;e) an analog to digital signal

- S1 226937 S (TEXTILE? OR KNIT? ? OR KNITT? OR WEAVE? OR WEAVING? OR SEWING? OR KNITTER? OR WEAVER? OR CLOTHING OR FABRIC? OR LOOM? ? OR EMBROID? OR QUILT? OR DISTAFF? OR STITCH? OR NEEDLESTITCH?)(2N)(LOOM? ? OR FACTORY? OR FACTORIE? OR ASSEMBLY()LINE? ? OR MILL? ? OR MACHINE? OR DEVICE? OR APPARATUS? OR WORKSTATION? OR APPLIANC? OR STATION? OR KIOSK?)
- S2 85067 S (AUTOMATED? OR INDUSTR? OR ROBOT?)()(ASSEMBLY? OR PROCESS? OR ASSEMBL?)
- S3 898046 S MACHINE?()TOOL? ? OR MACHINERY? OR
- EQUIPMENT? (2N) (MANUFACTUR? OR PRODUCTION? OR ASSEMBLY? OR MANUFACTUR?)
- S4 21057 S (INDUSTR? OR MECHANIC OR MECHANICAL? OR
- FACTORY?)()(DEVICE? OR MECHANISM? OR WORKSTATION? OR KIOSK?)
- S5 173740 S (MANUFACTUR? OR PRODUCTION OR ASSEMBLY OR
- MOLD?)(2N)(DEVICE? OR MECHANISM? OR WORKSTATION? OR KIOSK?)
- S6 193903 S (PRODUCTION OR ASSEMBLY?)()(FACILIT? OR LINE? OR KIOSK? OR WORKSTATION? OR STATION?) OR FACTORIE?
- S7 586220 S (ASSEMBLY? OR CHEMICAL? OR POWER) () PLANT?
- S8 2444 S OPERATOR()(WORKSTATION? OR STATION? OR KIOSK? OR CONSOLE? OR SERVER?)
- S9 171712 S INDUSTR?()(PLANT? ? OR MILL? ?) OR REFINERY OR REFINERIE?
- S10 714667 S (PHARMACEUT? OR POWER? OR CHEMICAL?)()PLANT? ? OR (PULP OR PAPER OR PRINT?)()MILL?
- S11 2370377 S S1:S10
- S12 90490 S NETWORK? OR INTRANET? OR ETHERNET? OR EXTRANET? OR VPN OR WAN OR VPNS OR WANS OR LAN OR LANS OR WLAN? OR WAP OR WAPS OR WWAN?
- S13 411698 S PLURAL? OR MULTI OR MULTIPLE? OR MULTIPLICIT? OR MULTITUD? OR MANY OR SEVERAL? OR DISTRIBUT?()CONTROL? OR NUMBER? OR NUMEROUS?
- S14 37329 S CLUSTER? OR ARRAY?
- S15 19101 S WIRELESS? OR RADIOLINK? OR RADIO()LINK??? OR BLUETOOTH OR IPV6 OR CORDLESS? OR WIFI OR WI()FI OR WIRE()LESS? OR BLUE()TOOTH

- S16 278107 S COMPUTER? OR MICROCONTROLLER? OR MICROCOMPUTER? OR MINICONTROLLER?
- S17 55022 S CONTROLLER? OR CONTROLLING()(DEVICE? OR UNIT? ?) OR MINICOMPUTER? OR PC OR PCS
- S18 270446 S COMPUTER? ? OR DATAPROCESSOR? OR MICROPROCESSOR? OR CENTRALPROCESSOR? OR CPU? ?
- S19 7002 S SERVER? OR (DATA OR MICRO OR CENTRAL)()(PROCESSOR? OR CONTROLLER?)
- \$20 3058 S PROGRAMMABLE()CONTROLLER? OR NUMERICAL()CONTROLLER?
- S21 10263 S PLC? ? OR PROGRAM?()LOGIC?()CONTROLLER?
- S22 14342 S (INDUSTRIAL? OR INDUSTRY? OR MANUFACTUR? OR FACTORY? OR ASSEMBLY?()PLANT? OR PRODUCTION?()FACILIT?)(3N)(CONTROLLER? OR SERVER? OR PROCESS?()CONTROL?)
- 523 75085 S (INDUSTRIAL? OR INDUSTRY? OR MANUFACTUR? OR FACTORY? OR ASSEMBLY?()PLANT? OR PRODUCTION?()FACILIT?)(3N)(COMPUTER? OR CPU? ? OR PROCESSOR?)
- S24 7510 S CELLPHONE? OR TABLET()(PC OR PCS) OR (MOBILE OR CELL OR CELLULAR? OR RADIO)()(PHONE? OR TELEPHONE?) OR POCKET()PC
- S25 1869 S (PORTABLE? OR HANDHELD? OR HAND()HELD? OR TRANSPORT? OR HAND()CARR? OR CARRYABL? OR MOBILE?)()(DEVICE? OR APPARATUS?)
- S26 2684 S PALM? ? OR PALMTOP? OR (PALM OR LAP)()(TOP OR TOPS) OR LAPTOP? OR BLACKBERRY?
- S27 4212 S PDA OR PDAS OR (PERSONAL OR PORTABLE?)()(DIGITAL OR INFORMATION)()(ASSISTANT? OR DEVICE?) OR PID OR PIDS
- S28 4705 S PALMPILOT? OR PALM()PILOT? OR CELLULAR?()(DEVIC? OR APPARATUS?) OR REMOTE()CONTROL? OR RADIO()FREQUENC?()(DEVIC? OR APPARATUS?)
- S29 476 S CORDLESS? OR CORD()LESS? OR POCKET()PC
- S30 738751 S MONITOR? OR DETERMIN? OR CONTROL? OR DETECT? OR TRANSDUCING? OR TRANSDUCER? OR SENSING OR SENSOR?
- 19163 S (SENSE? OR SENSING? OR TRANSDUC? OR DETECT? OR MONITOR?) (3N) (DEVIC? OR APPLIANC? OR APPARATUS? OR EQUIPMENT? OR HARDWARE? OR PERIPHERAL? OR ELEMENT?)
- 34625 S (SENSE? OR SENSING? OR TRANSDUC? OR DETECT? OR MONITOR?)(3N)(MODULE? OR UNIT? ? OR COMPONENT? OR HARD()WARE? OR SYSTEM? OR PROCESSOR? OR PROBE?)
- S33 51507 S QUERY? OR INTERROGAT? OR PING??? OR SURVEY? OR SURVEILL?
- S34 11767 S TRANSMITTER? OR TRANSCEIVER? OR EMITTER? OR TRANSPONDER? OR TRANSPONDER?
- S35 291 S RFTRANSMIT? OR RFTRANSPOND? OR RFTRANSCEIVER? OR REMOTE(2N) (TRANSMIT? OR TRANSMISS?)
- S36 1057 S TRANSMITT?(3N)RECEIV? OR TRANSMIT?(2N)RESPOND?R?
- S37 238 S (2WAY OR TWO()WAY OR 2()WAY)()(RADIO? OR COMMUNICAT? OR BLUETOOTH OR IEEE802? OR IEEE()(80211 OR 802()11) OR WIRELESS? OR WIRE()LESS OR WAP)
- S38 63 S TELEMET?()(DEVICE? OR APPARATUS?) OR
- TRANSMITT?R?(2N)DETECT?R? OR (BANDPASS OR BAND()PASS)()RECEIVER?
- S39 1221 S RFID OR RADIO()FREQUENC?()IDENTIF? OR RF()IDENTIF? OR TRIRM? ?
- S40 55 S XPDR? ? OR XPNDR? ? OR TPDR? OR TPNDR? OR RADIOTELEMET?
- S41 77 S INTERROGATOR? OR INTERROGATER? OR CELLULAR()(DEVICE? OR APPARATUS?)
- 39281 S WIRE OR WIRED OR WIRES OR HARDWIR? OR WIRING OR PHYSICAL()(CONNECT? OR ATTACH?) OR NONWIRELESS? OR (NON OR "NOT")()WIRELESS?

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S43
           134 S AU=(SPEICH F? OR SPEICH, F?)
           0 S SPEICH(2N)FRANC?
S44
           4157 S IC=(H04M? OR G05B? OR B29C? OR G06F?)
S46 0 S MC=(F03? OR T01? OR T06? OR W01? OR X25? OR F02?)
S47 30 S S11 AND S12.S14/10N.C15 777
S45
           30 S S11 AND S12:S14(10N)S15 AND S16:S23 AND S24:S29 AND
S34:S41
        132 S S43:S44 AND S1
S48
           0 S S48 AND S12:S14 AND S15 AND (S16:S29 OR S34:S41)
S49
             1 S S48 AND S15
S50
S51
       31 S S47 OR S50
27 RD (unique items)
91 S S11 AND S1 AND S12:S14 AND S15 AND S16:S23
21 S S53 AND (S24:S29 OR S34:S41)
91 S S53:S54
74 RD (unique items)
100 S S52 OR S56
100 RD (unique items)
30 S S58 AND PY=1970:2002
            31 S S47 OR S50
S52
S53
S54
S55
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S58
       30 S S58 AND PY=1970:2002
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            35 S S58 NOT PY=2003:2009
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#### [File 2] **INSPEC** 1898-2009/Feb W1

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\*File 2: Despite the gap in 2009 updates, the file is complete.

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## [File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec

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\*File 583: This file is no longer updating as of 12-13-2002.

61/5,K/10 (Item 5 from file: 8) **Links** 

Ei Compendex(R)

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0014021745 E.I. COMPENDEX No: 1998094000390

Coverage simulator for wireless networks

Espinosa, J.; Montero, M.; Hernando, J.M.; Perez, F.; Milanes, J.A.; Hidalgo, I.; Gallardo, M. Corresp. Author/Affil: Espinosa, J.: Universidad Politecnica de Madrid, Madrid, Spain Conference Title: Proceedings of the 1997 IEEE International Workshop on Factory

Communication Systems, WFCS

Conference Location: Barcelona, Spain Conference Date: 19971001-19971003

**Sponsor:** IEEE

E.I. Conference No.: 47576

IEEE International Workshop on Factory Communication Systems, WPCS, Proceedings, (IEEE Int Workshop Factory Commun Syst WFCS Proc ) **1997**, IEEE 97TH8313 (149-156)

**Publication Date: 19971201** 

Publisher: IEEE CODEN: 00222

**Document Type:** Conference Paper; Conference Proceeding **Record Type:** Abstract

Treatment: A; (Applications); T; (Theoretical)
Language: English Summary Language: English

**Number of References:** 9

Wireless communications is a necessity for today's industrial networking. There are important reasons supporting this affirmation. In flexible manufacturing, there are a large number of mobile devices which need wireless control such as mobile robots, portables, autonomous vehicles... Also enterprises like the idea of having the possibility of fast and cheap network reconfiguration that can be provided thanks to wireless nodes. For the design of these systems in a particular factory, industrial plant..., it is necessary to carry measurement campaigns for different transmitter and receiver locations in order to determine coverage. This paper presents a simulator which compute these calculations automatically, providing money and time savings.

**Descriptors:** Calculations; **Computer** simulation; Mathematical models; Mobile telecommunication systems; Signal **receivers**; **Transmitters**; \*Network protocols

Identifiers: Mobile receivers; Wireless industrial networks

**Classification Codes:** 

716.1 (Information & Communication Theory)

723.2 (Data Processing)

723.5 (Computer Applications)

921.6 (Numerical Methods)

Coverage simulator for wireless networks

#### 1997

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## IFULL TEXT OF THIS ARTICLE CAN BE FOUND HERE!

http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=634294&isnumber=13762

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61/5,K/18 (Item 1 from file: 67) **Links** 

WORLD TEXTILES

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Wireless (radio-controlled) let-off and take-up control system

Tsudakoma Corp.; Yamada S.

Corresp. Author/Affil: TSUDAKOMA IND

Journal:

**Publication Date:** January 1, 1986 (19860101)

Record Type: Abstract; New Document Type: Patent Patent No: EP 0 262 683

Priority Application: 6 April 1988 Priority application: Japan, 153022/86, 3 October 1986.

Languages: English

The radio control of warp let-off and take-up comprises a portable **transmitter** and **receivers** associated with the **controller** on a **loom** to adjust let-off or take-up. One operator can watch **several** warps and can vibrate warps to move them smoothly past the drop wires, mails of heddles and reed in preparing a new warp. International Patent Classification D03D.

## **Controlled Descriptors:**

CONTROL EQUIPMENT; LET OFF MOTIONS; **LOOM** LET OFF; **LOOM** TAKE UP; **LOOMS**; **REMOTE CONTROL**; TAKE UP MECHANISMS

Record History: New; Created: January 1, 1986 (19860101); Delivered: May 10, 2008

(20080510)

**Dialog Update Date: 2**0090114; 04:49:36 EST

Wireless (radio-controlled) let-off and take-up control system

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# **Controlled Descriptors:**

...LOOM LET OFF... ...LOOM TAKE UP... ...LOOMS; ... ...REMOTE CONTROL;

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